Request for Proposal

"Selection of Master System Integrator for Design, Development, Implementation, Operations and Maintenance of Smart Virtual Clinic, Bengaluru Central City Corporation."

The Bengaluru Central City Corporation,
Public Utility Building, 9th & 10th Floor, near Mayohall, M.G. Road, Bengaluru-560001.

Tender Reference Number: **BCCC/2026-27/SE0169**

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Selection of Master System Integrator for Implementing and operating Smart Virtual Clinics ("Two-Cover" System, through e-Procurement only)

1. Tender documents may be downloaded from the e-procurement portal of the Government of Karnataka.
2. Tenders must be submitted online through e-procurement portal only and the tendering process will be as per the e-procurement portal guidelines.
3. Other details can be seen in the tender documents.

SCHEDULE OF BIDDING PROCESS

Tender Number:	**BCCC/2026-27/SE0169**
Uploading Tender Document on e-Procurement Portal	07/05/2026 onwards
Prebid meeting	14/05/2026 12:30pm
Last date for uploading online queries in the kpp portal	14/05/2026 5:00 pm
Last date and Time for bidding through e-procurement portal.	08/06/2026 5:00 pm
Date and time for opening of Technical bids on e-Procurement Portal	09/06/2026 5:10 pm
Place of opening of bids	Online at KPP portal
EMD	20 lakhs
Amount put to tender	19.55 Crores
Performance Security	5% of the Contract Value
O & M period	2 years after Go-live of the Project + Extendable for period of 3 years.
Adress for Communication	Office of Health Officer (PH) BCCC, 9TH Floor, PU Building MG Road, Bangalore-560001. Contact number: 9480973395 Email ID: hophbccc2025@gmail.com

NOTE:

1) Technical Bids will be opened on the website https://kppp.karnataka.gov.in
For details, registration and e-payment visit GOK Karnataka public Procurement portal website https://kppp.karnataka.gov.in

DISCLAIMER

The information contained in this Request for Proposal document (the "RFP") or subsequently provided to Bidder(s), whether verbally or in documentary or any other form by or on behalf of the Bengaluru **Central City Corporation herein referred as BCCC** (the "Authority") or any of its employees or advisors, is provided to Bidder(s) on the terms and conditions set out in this RFP and such other terms and conditions subject to which such information is provided.

This RFP is not an Agreement and is neither an offer nor invitation by the Authority to the prospective Bidders or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in making their financial offers (Bids) pursuant to this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at by the Authority in relation to the Project. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require. This RFP may not be appropriate for all persons, and it is not possible for the Authority, its employees or advisors to consider the investment objectives, financial situation and particular needs of each party who reads or uses this RFP. The assumptions, assessments, statements and information contained in the Bidding Documents, may not be complete, accurate, adequate or correct. Each Bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this RFP and obtain independent advice from appropriate sources.

Information provided in this RFP to the Bidder(s) is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The Authority accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

The Authority, its employees and advisors make no representation or warranty and shall have no liability to any person, including any Bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way for participation in this Bid Stage.

The Authority also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this RFP. The Authority may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in this RFP.

The issue of this RFP does not imply that the Authority is bound to select a Bidder or to appoint the Successful Bidder or Contractor, as the case may be, for the Project and the Authority reserves the right to reject all or any of the Bidders or Bids without assigning any reason whatsoever.

The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the Authority or any other costs incurred in connection with or relating to its

Bid. All such costs and expenses will remain with the Bidder and the Authority shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation or submission of the Bid, regardless of the conduct or outcome of the Bidding Process.

Definitions/Acronyms

Sl No	Terms	Description
1	BOM	Bill of Material
2	BEC	Bidders Evaluation Committee
3	CC	Capital Cost
4	CEO	Chief Executive Officer
5	DD	Demand Draft
6	EMD	Earnest Money Deposit
7	ICT	Information and Communication Technology
8	INR	Indian National Rupee
9	LoA	Letter of Acceptance
10	MSI	Master System Integrator
11	NPV	Net Present Value
12	O&M	Operations & Maintenance
13	OEM	Original Equipment Manufacture
14	PBG	Performance Bank Guarantee
15	PoC	Proof of Concept
16	RFP	Request for Proposal
17	PV	Present Value
18	TQ	Technical Qualification
19	UAT	User Acceptance Testing
20	SVC	Smart Virtual Clinics
21	CCCC	Central Clinical Command Centre
22	PHC	Primary Healthcare Centre
23	STQC	Standardization Testing and Quality Certification
24	RACI	Responsible, Accountable, Consulted and Informed
25	BCCC	Bengaluru Central City Corporation

2 Introduction

2.1 About Bengaluru Central City Corporation

2.2 Bengaluru Central City Corporation (BCCC) is one of the newly constituted municipal corporations established under the Greater Bengaluru governance framework to improve urban administration and service delivery in Bengaluru. Formed through the reorganization of the erstwhile BBMP, BCCC is responsible for the civic administration, infrastructure development, public health services, solid waste management, drainage, licensing, and overall urban governance of the central parts of Bengaluru. Covering several key commercial, residential, and heritage areas, BCCC plays a crucial role in addressing the unique challenges of central urban zones such as traffic congestion, infrastructure demand, and civic service efficiency. The creation of BCCC is aimed at decentralizing governance, enhancing accountability, and ensuring more focused, responsive, and citizen-centric administration in Bengaluru's core city areas.

2.3 Introduction to the Project

Bengaluru, one of India's fastest-growing metropolitan cities, had a population of 84.3 lakhs as per the Census 2011, spread across 198 wards over an area of 709.5 sq. km. Civic services in the city are delivered through various public agencies, including the GBA Greater Bengaluru Authority and it's five city Corporations, Bengaluru Water Supply and Sewerage Board (BWSSB), Bengaluru Electricity Supply Company (BESCOM), Bengaluru Metropolitan Transport Corporation (BMTC), Bengaluru Traffic Police (BTP), and Bengaluru City Police (BCP).

Among all public services, healthcare remains one of the most critical and essential needs of the citizens of Bengaluru. To address this, the Health Department has established a broad network of healthcare institutions across the city, including Hospitals, Family Welfare Centres, Maternity Centres, Referral Hospitals, and Urban Primary Health Centres (UPHCs), which cater to a large section of the population, particularly the urban low-income and underserved communities.

However, the challenges experienced during the COVID-19 pandemic highlighted the urgent need to strengthen last-mile healthcare delivery, improve accessibility to medical consultation, and build a more resilient and future-ready public health system. In this context, the Smart Virtual Clinic (SVC) Project was conceptualized as an innovative and technology-enabled healthcare solution to enhance citizen access to quality medical services.

The Smart Virtual Clinic (SVC) leverages telemedicine and remote consultation technologies to deliver timely and efficient healthcare services closer to citizens, especially in underserved urban areas. By enabling virtual consultations, digital diagnosis support, and prescription services, the project helps bridge the gap created by the limited doctor-to-patient ratio and improves access to specialist consultations without requiring patients to travel long distances or wait in overcrowded healthcare facilities.

The SVC initiative is designed not only to address immediate healthcare accessibility challenges but also to serve as a scalable, sustainable, and future-ready model for strengthening urban primary healthcare in Bengaluru. Through this initiative, the Health Department aims to improve convenience, reduce pressure on physical healthcare infrastructure, and ensure equitable access to quality healthcare services for all sections of society.

2.4 Project Background and Objective

The **Smart Virtual Clinic (SVC)** platform has been successfully established by BENGALURU SMART CITY LIMITED and in association with BBMP and is currently operational in **28 Urban Primary Health Centres (UPHCs)**, enabling **real-time video consultations** between patients and qualified medical practitioners. Since its implementation, the platform has facilitated **thousands of consultations and follow-up interactions**, thereby demonstrating its effectiveness in improving access to healthcare services at the primary care level.

The operational success of the SVC initiative is supported by the availability of **specialist doctors**, **trained paramedical and support staff**, and a robust digital consultation framework. The platform has consistently demonstrated **operational efficiency, scalability, and service reliability** in delivering timely medical advice and follow-up care.

A key strength of the SVC model lies in its **plug-and-play architecture**, which allows for the **seamless integration of additional medical devices, diagnostic tools, and technology upgrades** as healthcare requirements evolve. This flexibility ensures that the platform remains adaptable, future-ready, and capable of supporting expanded service delivery across diverse clinical settings.

Proposed Expansion

In order to further strengthen healthcare delivery and enhance equitable access to specialist medical consultation services, it is proposed to **extend the Smart Virtual Clinic platform to 22 locations across the Bengaluru Central region** and Central Clinical Command Center in Bengaluru Central region.

The proposed expansion is aimed at:

- Improving access to **timely and quality healthcare services** for a larger population;
- Enabling **specialist consultations closer to the community level**;
- Reducing the burden on secondary and tertiary healthcare institutions;
- Strengthening the digital healthcare ecosystem within the public health infrastructure; and
- Building upon the proven success and operational model already established under the existing SVC network.

The expansion of the SVC platform is expected to significantly improve the **reach, efficiency, and effectiveness of healthcare service delivery** across Bangalore. This initiative will further reinforce the Smart Virtual Clinic model as a **critical and sustainable component of future-ready public healthcare delivery systems** in the region.

2.5 RFP Format

The intent of this RFP is to invite bids from the Bidders for implementation of Smart Virtual Clinics for Bengaluru.

The Request for Proposal (RFP) consists of following viz:

a) Instruction to Bidders: Details the instructions with respect to the bid process management, technical evaluation framework, and the technical & financial forms.
b) Selection Process for Bidder: The Technical and Financial Bids shall be opened by **BCCC** through e- Procurement online portal, https://kppp.karnataka.gov.in in the registered office of **BCCC**.
c) Evaluation Process: The **BCCC** will constitute a Bid Evaluation Committee (BEC) to evaluate the process of the Bid and Bidders.
d) Eligible Goods and Services.
e) Award Criteria.
f) Scope of Work: including Functional & Technical Specifications. Detailed Scope Requirement with Specifications.
g) Project Implementation Schedule, Deliverables and Payment Term.
h) Annexures.

3 Instruction to Bidders

3.1 General

a. While every effort has been made to provide comprehensive and accurate background information, requirements and envisaged solution(s) specifications, Bidders must form their own conclusions about the solution(s) needed to meet the Project requirements.
b. Bidders and Recipients of this RFP may wish to consult their own legal advisers in relation to this RFP.
c. All information supplied by Bidders as part of their bids in response to this RFP, may be treated as contractually binding on the Bidders, on successful award of the Project by **BCCC** on the basis of this RFP.
d. No commitment of any kind, contractual or otherwise shall exist unless and until a formal written contract has been executed by or on behalf of **BCCC**. Any notification of preferred bidder status by **BCCC** shall not give rise to any enforceable rights by the Bidder. **BCCC** may cancel this

public procurement at any time prior to a formal written contract being executed by or on behalf of **BCCC**.

e. Bids shall be received by **BCCC** on the e-Procurement portal www.kppp.karnataka.gov.in before the time and date specified in the schedule of the tender notice or any addendum/ corrigendum issued subsequently by **BCCC** on the e- Procurement portal. **BCCC** may, at its discretion, extend this deadline for submission of offers by issuing corrigendum and uploading the same on e-Procurement portal.

f. Any other form of bid submission through email, telex, facsimile etc. shall not be accepted.

3.2 Limiting Liability

3.2.1 Clinical workflow and operations

- Clear protocols are established for inter clinical operations and the operator signs a declaration confirming the understanding of protocol
- These protocols are designed to meet the requirements of various specialties of consultations
- The protocol includes capturing the patient information and assessing some of the basic parameters of health like, BP, Height and Weight along with complete information on patient's medical condition and allergic restrictions etc.
- The information collected would be used to decide whether the case falls under the scope / acceptable levels of Telemedicine and virtual clinical consulting or needs to be directed to a different facility.

3.2.2 Operator qualification

- Paramedic clinical operators are trained and certified to operate all the devices in the virtual clinic setup.
- Operators would be aware of the DOs and DONTs of clinical operation procedure and under no circumstances they would cross the protocol guidelines

3.2.3 Patient declaration

- Every patient before the beginning of virtual clinic consultation would sign a simple declaration either physically or on the patient app
- The declaration would protect all the stakeholders within the system including the doctors, clinical operators, technology platform developers, in the event of unforeseen circumstances.

3.3 Compliant Bids/Completeness of Response

a. Bidders are advised to study all instructions, forms, terms, requirements and other information in the RFP documents carefully. Submission of the bid shall be deemed to have been done after careful study and examination of the RFP document with full understanding of its implications.

b. Failure to comply with the requirements of this paragraph may render the bid non- compliant and the Bid may be rejected. Bidders must:

   i. Include all documentation specified in this RFP, in the bid.

   ii. Follow the format of this RFP while preparing the bid and respond to each element in the order as set out in this RFP.

   iii. Comply with all requirements as set out within this RFP.

3.4 Bidder to Inform

The Bidder shall be deemed to have carefully examined the Terms & Conditions, Scope, Service Levels, Specifications, and Schedules of this RFP. If bidder has any doubts/clarifications as to the meaning of any portion of the Conditions or the specifications they shall, before the last date for Submission of Pre-Bid Queries, set forth the particulars thereof and submit them to **BCCC** in writing in order that such doubt may be removed or clarifications are provided.

3.5 Bid Preparation costs

The Bidder shall bear all costs associated with the preparation and submission of its bid, for the purposes of clarification of the bid, if so desired by **BCCC**.

3.6 Pre-bid Meeting & Clarification Bidders Queries

Any clarification regarding the RFP document and any other item related to this project can be submitted to **BCCC** as per the submission mode and timelines mentioned in the Fact Sheet. The pre-bid queries should be submitted through e-procurement portal only.

BCCC shall not be responsible for ensuring that the bidders' queries have been received by them. Any requests for clarifications post the indicated date and time shall not be entertained by **BCCC**.

Bidders must submit their queries through e-procurement portal only as per the format mentioned in **Annexure 5** – Template for Pre-Bid Queries on or before .

Responses to Pre-Bid Queries and Issue of Corrigendum

BCCC will organize a pre-bid meeting at **BCCC** office and will respond to any request for clarification or modification of the bidding documents. **BCCC** shall formally respond to the pre-bid queries after the pre-bid meeting. No further clarifications shall be entertained after the date and time of submission of queries.

BCCC shall endeavor to provide a timely response to all queries. However, **BCCC** makes no representation or warranty as to the completeness or accuracy of any response made in good faith. **BCCC** does not undertake to answer all the queries that have been posed by the bidders.

Any modifications of the RFP Documents, which may become necessary as a result of the Pre- Bid meeting, shall be made by **BCCC** exclusively through a corrigendum/addendum. Any such corrigendum/addendum shall be deemed to be incorporated into this RFP. However, in case of any such amendment, the bid submission date may be extended at the discretion of **BCCC**.

Any corrigendum/addendum/notification issued by **BCCC**, subsequent to issue of RFP, shall only be available/hosted on e-procurement portal. Any such corrigendum/addendum shall be deemed to be incorporated into this RFP.

3.7 RFP Document Fee

1. RFP can be downloaded from the e-procurement portal https://kppp.karnataka.gov.in
2. Tender Processing Fee as per the e-procurement guidelines shall be paid which is non-refundable.
3. Without the payment of tender fee the bids will be taken as incomplete and non-responsive and shall be rejected.

3.8 Earnest Money Deposit (EMD)

1. In terms of this RFP, a Bidder is required to submit EMD of Rs. 20,00,000/- (Rs. Twenty Lakhs shall be paid through e-procurement. & Remaining Rs. 19,00,000/- Lakhs (Rs. Nineteen Lakhs through Bank Guaranty).

2. The Bidder shall deposit the EMD through E-Procurement Website, through any one of the following e-Payment options only.

Online payments:
Credit Card

Direct Debit
Internet Banking

Offline payments:

Remittance at the Bank Counter using challan (any Nationalized or Scheduled Commercial Bank only)
NEFT/RTGS

3. Please note that payment submitted through cheque or demand draft shall not be accepted. For further details regarding e-payment, please refer to E-Procurement Website.

4. The Bidder shall provide the remaining EMD amount of Rs. 19.00 Lakhs in the form of a Bank Guarantee (the "Bank Guarantee") acceptable to the Authority, from a Nationalized or Scheduled Commercial Bank, and the validity period of the Bank Guarantee shall not be less than 180 days from the Bid Due Date, inclusive of a claim period of 60 (sixty) days, and may be extended as may be mutually agreed between Authority and the Bidder from time to time. The Bid shall be summarily rejected if it is not accompanied by EMD.

Terms of payment of EMD is further clarified and shown in the table below:

(Rs. in Lakhs.)

No	Name of the Project	EMD Amount	Through e-payment	Through Bank Guarantee
1.	Selection of Master System Integrator for Design, Development, Implementation, Operation and Maintenance of Smart Virtual Clinic	**20.00**	**1.00**	**19.00**

Note

1. The Authority shall not be held responsible in case of failure on the part of the Bidder to furnish the EMD through E-Procurement Website or for rejection of Bids by E-Procurement for whatsoever reasons. No correspondence shall be entertained by the Authority in this regard.

2. The original Bank Guarantee EMD for Rs. 19.00 Lakhs only shall be submitted to Commissioner, **BCCC** The Bengaluru Central City Corporation, Public Utility Building, 9th & 10th Floor, near Mayohall, M.G. Road, Bengaluru-560001, on or before the bid submission date and time at **BCCC** registered office.

3. Unsuccessful Bidders' EMD will be returned after award of the Contract and signing of the Contract with the successful bidder. The EMD of the successful Bidder would be returned upon submission of Performance Bank Guarantee (for an amount equal to 5% of Total Contract Value) in the format provided in **Annexure 9**. The EMD should be valid for a period of 180 days from the date of

submission of Bid document.

4. No interest will be paid by the Authority on the EMD amount.

5. The Bid submitted without EMD will be summarily rejected.

6. The EMD may be forfeited:

   a. If a Bidder withdraws his bid or increases his quoted prices during the period of bid validity or its extended period, if any.
   b. In case of a successful bidder, if the Bidder fails to sign the Contract in accordance with the terms and conditions of this RFP.
   c. If during the bid process, a bidder indulges in any such deliberate act as would jeopardize or unnecessarily delay the process of bid evaluation and finalization.
   d. If, during the bid process, any information is found false/fraudulent/mala fide, and then Authority shall reject the bid and, if necessary, initiate action.

7. The decision of Authority regarding forfeiture of the EMD shall be final and binding upon all the bidders.

3.9 Late Bids and Bid Validity Period

Bidder shall not be able to submit the Bid after the Bid Submission time and date as the icon or the task in the e-procurement website will not be available on the e-procurement portal. The validity of the bids submitted on or before deadline shall be till 180 days from the date of submission of the Bid.

3.10 Contents of Bid

The two bids system shall be followed. Technical and Financial Proposal shall be uploaded separately through the e-procurement portal.

a. Please note that prices should NOT be indicated in the Technical Bid but should only be indicated in the Financial Proposal in the e-procurement portal. In case of any commercial figures are mentioned in other than commercial bid documents then such bid is subject to rejection.
b. All the pages of the bid must be sequentially numbered. The bid documents must contain in the beginning of the document, a list of contents with page numbers. Any deficiency in the documentation may result in the rejection of the Bid.
c. The original bid shall be prepared in indelible ink. It shall contain no interlineations or overwriting, except as necessary to correct errors made by the Bidder itself. Any such corrections must be initialed by the person (or persons) who sign(s) the bids.
d. All pages of the bid shall be initialed and stamped by the person (or persons) who is authorized to sign the bid.

e. Failure to submit the bid before the submission deadline specified in the would cause a bid to be rejected.

Bid Submission Details

1. Complete bidding process will be through e-procurement mode, in the following manner.

Particulars	Instructions
(a) Technical Proposal	The Technical Proposal and Qualification Document shall be prepared in accordance with the requirements specified in this RFP and the formats are prescribed in Annexure 1 and Annexure 2 of the RFP Technical Proposal and Qualification Document should be submitted through e-procurement bid submission process
Financial Proposal	The Financial Proposal shall be submitted in accordance with the requirements specified in this RFP and in the format prescribed in Annexure 3 of the RFP. Financial Proposal shall be submitted through e-procurement portal only.

Note: ***Authority will conduct the bid evaluation based on documents submitted through e-procurement portal.***

2. The following points shall be kept in mind for submission of bids;

a. The Authority shall not accept delivery of Bids in any manner other than that specified in this RFP. Bid delivered in any other manner shall be treated as defective, invalid and rejected.

b. The Bidder is expected to price all the items and services sought in the RFP and proposed in the Technical Proposal. The Bid should be comprehensive and inclusive of all the services to be provided by the Bidder as per the scope of work and in accordance with the terms and conditions as set out in the Contract, without any exclusions / omissions / exceptions. Price to be inclusive of all adjunct / ancillary services and works, whether specifically mentioned or not

c. Authority may seek clarifications from the Bidder on the Technical Proposal. Any of the clarifications by the Bidder on the Technical Proposal should not have any commercial implications.

d. The Financial Proposal submitted by the Bidder should be inclusive of all the items in the Technical Proposal.

e. Technical Proposal shall not contain any financial information.

f. If the Bidder does not meet the qualification criteria, the Financial Proposal of the respective Bidder shall not be opened on the e-Procurement portal.

g. It is required that all the Bids submitted in response to this RFP should be unconditional in all respects, failing which the Authority reserves the right to reject the Bid.

3.11 Language

The bid should be prepared and submitted by the bidders in English language only. If any submitted supporting documents are in any language other than English, translation of the same in English language is to be provided (duly attested) by the Bidders. For purposes of interpretation of the documents, the English translation shall govern. Such translated documents shall be notarized and incase of any incorrectness of the translation, the bidder will be penalized.

3.12 Non-conforming Bids

A Bid may be construed as a non-conforming proposal and ineligible for consideration:

a. If it does not comply with the requirements of this RFP

b. If the Bid does not follow the format requested in this RFP or does not appear to address the particular requirements of the Authority.

3.13 Authentication of Bids

An authorized representative (or representatives) of the Bidder shall initial all pages of the bid documents.

Bid should be accompanied by an authorization in the name of the signatory (or signatories) of the Bid. The authorization shall be in the form of a written power of attorney as in **Annexure 6** of this tender document accompanying the Bid or in any other form demonstrating that the representative has been duly authorized to sign.

3.14 Amendment of Request for Proposal

At any time prior to the due date for submission of bid, **BCCC** may, for any reason, whether at its own initiative or in response to a clarification requested by prospective bidder(s), modify the RFP document by amendments. Such amendments shall be uploaded on the e-procurement portal website, through corrigendum and shall form an integral part of RFP document. The relevant clauses of the RFP document shall be treated as amended accordingly.

It shall be the responsibility of the prospective bidder(s) to check e-procurement portal from time to time for any amendment in the RFP document. In case of failure to get the amendments, if any,

BCCC shall not be responsible.

In order to allow prospective bidders a reasonable time to take the amendment into account in preparing their bids, **BCCC**, at its discretion, may extend the deadline for submission of bids. Such extensions shall be uploaded on the e-procurement portal.

3.15 Late Bids

Late submission will not be entertained and will not be permitted by the e-procurement portal. Authorities shall not be responsible for delay in submission of any online submission related or website related issues and date of submission cannot be extended for such reasons.

3.16 Right to Terminate the Process

BCCC may terminate the RFP process at any time and without assigning any reason. **BCCC** makes no commitments, express or implied, that this process will result in a business transaction with anyone. This RFP does not constitute an offer by **BCCC**.

3.17 Non-Conforming bids

A bid may be construed as a non-conforming bids and ineligible for consideration:

a. If it does not comply with the requirements of this RFP.
b. If a bid does not follow the format requested in this RFP or does not appear to address the particular requirements of the solution.

3.18 Confidentiality

All the material/information shared with the Bidder during the course of this procurement process as well as the subsequent resulting engagement following this process with the successful bidder, shall be treated as confidential and should not be disclosed in any manner to any unauthorized person under any circumstances.

3.19 Disqualification

The bid is liable to be disqualified in the following cases, but not limited to,

a) In-case bidder fails to meet the bidding requirements / terms & conditions as prescribed in this RFP
b) During validity of the bid, or its extended period, if any, the bidder changes its quoted prices.
c) The bidder's bid is conditional and has deviations from the terms and conditions of RFP.
d) Bid is received in incomplete form.
e) Bid is not accompanied by all the requisite documents.

f) Information submitted in technical bid is found to be misrepresented, incorrect or false, accidentally, unwittingly or otherwise, at any time during the processing of the contract (no matter at what stage) or during the tenure of the contract including the extension period if any.

g) Financial bid is enclosed with the same document as technical bid.

h) Bidder tries to influence the bid evaluation process by unlawful / corrupt / fraudulent means at any point of time during the bid process.

i) In case any one party submits multiple bids or if common interests are found in two or more bidders, the bidders are likely to be disqualified, unless additional bids/bidders are withdrawn upon notice immediately

j) If the Lead Bidder is also a partner in any other bid, then all the affected bids shall be disqualified.

k) Required EMD has to be furnished. Bids without EMD will be disqualified.

3.20 Key Personnel

BCCC has identified certain key positions and minimum qualifications for each of the positions that should be part of the project team of the bidder (hereby referred to as "key personnel").

3.21 Initial Composition; Full Time Obligation; Continuity of Personnel

Bidder shall ensure that each member of the Key Personnel devotes substantial working time as per the staffing schedule/ manpower plan to perform the services to which that person has been assigned as per the bid.

Bidder shall not make any changes to the composition of the Key Personnel and not require or request any member of the Key Personnel to cease or reduce his or her involvement in the provision of the Services during the defined term of the engagement unless that person resigns, is terminated for cause, is long-term disabled, is on permitted mandatory leave under Applicable Law or retires. In any such case, **BCCC**'s prior written consent would be mandatory.

3.22 Evaluations

Bidder shall carry out an evaluation of the performance of each member of the Key Personnel in connection with the Services at least once in each Contract Year. Bidder shall provide reasonable written notice to **BCCC** of the date of each evaluation of each member of the Key Personnel. **BCCC** shall be entitled to provide inputs to the bidder for each such evaluation. Bidder shall promptly provide the results of each evaluation to **BCCC**, subject to Applicable Law.

3.23 Replacement

In case any proposed resource resigns, then the Bidder has to inform **BCCC** within one week of such resignation.

Bidder shall promptly initiate a search for a replacement to ensure that the role of any member of the Key Personnel is not vacant at any point in time during the contract period, subject to reasonable extensions requested by Bidder to **BCCC**.

Before assigning any replacement member of the Key Personnel to the provision of the Services, Bidder shall provide **BCCC** with a resume, curriculum vitae and any other information about the candidate that is reasonably requested by **BCCC**; and an opportunity to interview the candidate.

The bidder has to provide replacement resources of equal or better qualification and experience as per the requirements of this RFP. If **BCCC** objects to the appointment, Bidder shall not assign the individual to that position and shall seek an alternative candidate in accordance with the resource requirements of this RFP.

The bidder needs to ensure at least 4 weeks of overlap period in such replacements. **BCCC** will not be responsible for any knowledge transition to the replacement resource and any impact/escalation of cost incurred by the bidder due to resource replacement.

3.24 Fraud and Corrupt Practices

a) The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Selection Process. Notwithstanding anything to the contrary contained in this RFP, **BCCC** shall reject a Bid without being liable in any manner whatsoever to the Bidder, if it determines that the Bidder has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the "Prohibited Practices") in the Selection Process. In such an event, **BCCC** shall, without prejudice to its any other rights or remedies, forfeit and appropriate the EMD or PBG, as the case may be, as mutually agreed genuine pre-estimated compensation and damages payable to **BCCC** for, inter alia, time, cost and effort of **BCCC**, in regard to the RFP, including consideration and evaluation of such Bidder's Bid.

b) Without prejudice to the rights of **BCCC** under Clause above and the rights and remedies which **BCCC** may have under the LOA or the Agreement, if a Bidder is found by **BCCC** to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Selection Process, or after the issue of the LOA or the execution of the Agreement, such Bidder shall not be eligible to participate in any tender or RFP issued by **BCCC** during a period of 3 years from the date such

Bidder is found by **BCCC** to have directly or through an agent, engaged or indulged in any Prohibited Practices.

c) For the purposes of this Section, the following terms shall have the meaning hereinafter respectively assigned to them:

d) **"corrupt practice"** means (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of any person connected with the Selection Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of **BCCC** who is or has been associated in any manner, directly or indirectly with the Selection Process or the LOA or has dealt with matters concerning the Agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of **BCCC**, shall be deemed to constitute influencing the actions of a person connected with the Selection Process); or (ii) save as provided herein, engaging in any manner whatsoever, whether during the Selection Process or after the issue of the LOA or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the Project or the Award or the Agreement, who at any time has been or is a legal, financial or technical consultant/adviser of **BCCC** in relation to any matter concerning the Project;

e) **"fraudulent practice"** means a misrepresentation or omission of facts or disclosure of incomplete facts, in order to influence the Selection Process;

f) **"coercive practice"** means impairing or harming or threatening to impair or harm, directly or indirectly, any persons or property to influence any person's participation or action in the Selection Process;

g) **"undesirable practice"** means (i) establishing contact with any person connected with or employed or engaged by **BCCC** with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Selection Process; or (ii) having a Conflict of Interest; and

h) **"restrictive practice"** means forming a cartel or arriving at any understanding or arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the Selection Process.

3.25 Conflict of Interest

a) A bidder shall not have a conflict of interest that may affect the Selection Process or the Solution delivery (the "Conflict of Interest"). Any Bidder found to have a Conflict of Interest shall be disqualified. In the event of disqualification, **BCCC** shall forfeit and appropriate the EMD, if

available, as mutually agreed genuine pre-estimated compensation and damages payable to **BCCC** for, inter alia, the time, cost and effort of **BCCC** including consideration of such Bidder's Bid, without prejudice to any other right or remedy that may be available to **BCCC** hereunder or otherwise.

b) **BCCC** requires that the bidder provides solutions which at all times hold **BCCC**'s interest paramount, avoid conflicts with other assignments or its own interests, and act without any consideration for future work. The bidder shall not accept or engage in any assignment that would be in conflict with its prior or current obligations to other clients, or that may place it in a position of not being able to carry out the assignment in the best interests of **BCCC**.

3.26 Sub-Contracting

The bidder would not be allowed to subcontract work, except for the following:

a. Cabling and fixtures work, and all civil work during implementation.
b. Facility Management Staff at Command & Communications Center.

Subcontracting shall be allowed only with prior written approval of **BCCC**. However, even if the work is subcontracted, the sole responsibility of the work shall lie with the lead bidder. The lead bidder shall be held responsible for any delay/error/non-compliance etc. of its sub-contracted vendor. The details of the subcontracting agreements (if any) between both the parties would be required to be submitted to **BCCC**.

3.27 Inclusion of MSMEs in Project Delivery

Bidders are encouraged to include Micro, Small and Medium Enterprises (MSMEs) in the delivery of the project. Bidders may earmark some proportion of the total contract for procuring goods and services from MSEs. Activities that can be subcontracted to MSME/MSE partners are restricted to those defined under Subcontracting Clause 3.26 above.

3.28 Choice of Original Equipment Manufacturer (OEM):

The Bidder shall apply high standards of diligence in choosing an optimal OEM(s) who comply with the tender conditions, specifications & SLAs. The Bidder may evaluate products being proposed are not end of life and also there is guarantee of OEM support for a minimum period of two (2) years.

The same may be formally secured through the Manufacturer's Authorization form prescribed in **Annexure 2.4.**Withdrawal, Substitution, and Modification of Bids

a. A Bidder may withdraw its Bid or re-submit its Bid (technical and/ or financial) as per the instructions/ procedure mentioned at online portal
b. Bids withdrawn shall not be opened and processed further.

3.29 Site Visit

a. The Bidder may wish to visit and examine the site or sites and obtain for itself, at its own responsibility and risk, all information that may be necessary for preparing the bid and entering into the Contract. The costs of visiting the site or sites shall be at the Bidder's own expense.
b. The **BCCC**, upon request from any bidder will arrange for site visit of its personnel or agents to gain access to the relevant site or sites, provided that the Bidder gives **BCCC** adequate notice of a proposed visit of at least 7 (seven) days. Failure of a Bidder to make a site visit will not be a cause for its disqualification.
c. No site visits shall be arranged or scheduled after the deadline for the submission of the Bids and prior to the award of Contract.

4 Selection Process for Bidder

4.1 Opening of Bids

a. The technical and financial bids shall be opened by **BCCC** on e-procurement portal.
b. During bid opening, preliminary scrutiny of the bid documents shall be made to determine whether required EMD has been furnished, whether the documents have been properly signed and whether the bids are generally in order.

4.2 Preliminary Examination of Bids

BCCC shall examine the bids to determine whether they are complete, whether the documents have been properly signed and whether the bids are generally in order. Any bids found to be unresponsive for any reason or not meeting any criteria specified in the RFP, shall be rejected by **BCCC** and shall not be included for further consideration.

Initial Bid scrutiny shall be held and bids will be treated as non-responsive, if bids are:

a) Not submitted in format as specified in the RFP document
b) Received without the Letter of Authorization (Power of Attorney)

c) Found with suppression of details
d) With incomplete information, subjective, conditional offers and partial offers submitted
e) Submitted without the documents requested
f) Non-compliant to any of the clauses mentioned in the RFP
g) With lesser validity period
h) Signature of Authorized personnel on all pages of the bid.

4.3 Clarification on Bids

During the bid evaluation, **BCCC** may, at its discretion, ask the Bidder for any clarification(s) of its bid. The request for clarification and the response shall be in writing, and no change in the price or substance of the bid shall be sought, offered, or permitted.

5 Evaluation Process

a. The Authority will constitute a Bid Evaluation Committee (BEC) to evaluate the responses of the Bidders
b. BEC constituted by the Authority shall evaluate the responses to the RFP and all supporting documents / documentary evidence. Inability to submit requisite supporting documents / documentary evidence, may lead to rejection.
c. The decision of the BEC in the evaluation of responses to the RFP shall be final. No correspondence shall be entertained outside the process of negotiation/ discussion with BEC.
d. BEC may seek clarifications from any Bidder, as necessary and may visit Bidder's client site to validate the credentials/ citations claimed by the Bidder.
e. Each of the responses shall be evaluated as per the criteria and requirements specified in this RFP.

5.1 Evaluation of Qualification Document and Technical Proposal

a. Authority shall open the Qualification document. ***Each of the Qualification condition mentioned in Section 5.3 of the RFP is MANDATORY***. The Bidder shall meet all the conditions as mentioned under the Section 5.3 of the RFP, otherwise, the bids will be disqualified.
b. The Qualification document MUST contain all the documents in compliance with instructions given in the **Annexure 1**

c. Response to the Qualification requirements shall be evaluated in accordance with the requirements specified in this RFP and in the manner prescribed in Section 5.3 of the RFP.

d. Bidders' Technical Proposals will be evaluated as per the requirements and guidelines specified in the Annexure 2 and Qualification Criteria as mentioned in Section 5.3 of the RFP.

e. The bidders have to demonstrate the end-to-end solution as per the scope of work mentioned in the RFP to the purchaser I.e. Bengaluru **BCCC**. The financial bids shall then be opened who will qualify in technical evaluation of bids. The BEC may call for PoC, if required.

f. The Bidders are required to submit all required documentation in support of the evaluation criteria specified (e.g. Detailed project citations and copy of work order, client contact information for verification, and all others components) as required for technical evaluation.

g. The Authority may envisage to share proof of concept / technical demonstration to evaluate the technology & system performance; During the Demonstration/Proof-of-Concept (PoC) at technical evaluation stage, the BEC will give special attention to verify the quality, robustness and appropriateness of the proposed Solutions/Equipment. If any brand / products are found unsuitable, Bidder may get disqualified or may be asked to replace the product with better products, meeting the tender requirements, without any change in commercial bid. Bidder may demonstrate local setup or existing deployments over network/cloud.

5.2 Financial Proposal Evaluation

a. Total Capex price should not exceed 70% of the Grand Total (Capex + Opex) quoted for the project.

b. Financial Proposals that are not meeting the condition mentioned in **Annexure 3** shall be liable for rejection.

c. Arithmetical errors will be rectified on the following basis:

   i. If there is a discrepancy between the unit price and the total price (in **Annexure 3.2**) that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail.

   ii. If there is an error in a total corresponding to the addition or subtraction of subtotals (in **Annexure 3.2**) and the total mentioned under section 3.2.2, the subtotals shall prevail and the grand total shall be corrected

   iii. If the Bidder does not accept the correction of errors, the bid will be rejected and EMD may be forfeited, if any.

   iv. Prices quoted by the Bidder for unit rates shall remain firm during the entire contract period and

not subject to price variation on any account. A bid submitted with an adjustable price quotation shall be treated as non-responsive and rejected.

v. Item for which no rates or price is entered by the bidder will not be paid for by the **BCCC** when executed and shall be deemed covered by the other rates and price in the bill of quantities.

5.3 Qualification Criteria

#	Criteria	Details	Mandatory documentary evidence to be submitted
1	**Registration Status**	The Bidder should be in existence of any of the following: (a) Companies incorporated in India under the Companies Act, 1956/2013 including any amendments thereto; (b) LLP incorporated in India under the Limited Liability Partnership (LLP) Act, 2008 including any amendment thereto; (c) (i) Partnership firm under Partnership Act, 1932 in India; (ii) Sole Proprietorship Concern.	Certificate of Incorporation issued by Registrar of Companies as per Companies Act 1956/2013 along with Memorandum of Association and Articles of Association of the Company. Certificate of Incorporation issued by Registrar of Companies as per LLP Act 2008. Partnership deed, GST Registration certificate.
2	**GST**	The Bidder should have valid GST certificate and income tax registration (PAN).	• Self-Certified Copy of PAN Card • Copy of GST certificate
3	**Turnover**	The Annual Turnover of the Bidder in at least two financial years in any of the previous five financial years i.e., (FY 2020-21, 2021-22 & 2022-23, 2023-24 & 2024-25) should not be less than **Rs. 19.55 Crores** **Note:** The previous year's turnover of the bidder is updated to the FY in which the tenders are invited. Financial turnover of previous years shall be given a weight of 10% per year to bring them to the price level of the FY in which the tenders are invited	Certified copies of audited financial statements such as P&L statement, Balance sheets & ITR for the FY 2020-21, 2021-22 & 2022-23, 2023-24 & 2024-25.
4	**Net Worth**	The Bidder should have positive net-worth for the last 3 years as on 31 March, 2025	The net worth certificate signed by CA shall be uploaded.
5	**Non –Blacklist**	The Bidder including all the OEM Partners in the last 10 years at the time of submission, 1. Should not be under a declaration of ineligibility for corrupt or fraudulent practices with any of the State government or Central Government or PSU or Municipal agencies in India or Abroad. **OR**	Self-Declaration on Non-Judicial stamp paper of appropriate value, duly notarized as per Annexure 4. Note: The bidder shall declare on Non-Judicial stamp of appropriate value that the information furnished by them are true and correct. If BCCC found that any misleading information and/or suppressing of the facts by the bidders, BCCC shall reject the bid and such

		2. The Bidder must not have been blacklisted or banned or debarred. **OR** 3. The Bidder who's work orders have been short closed due to non-performance or who's LOA is withdrawn by the owner due to inefficiency of the bidder in performing or implementing assigned project technically/financially are not eligible to participate in this bid.	bidder will be black listed including initiation of legal/criminal proceeding. The decision of the BCCC shall be final in this regard
6	**Local Office**	The Bidder should have an office in Bangalore/Karnataka or Bidder should furnish an undertaking to open office within 30 days of allotment of Detailed Work Award.	A self-certified letter by authorized signatory of the Bidder
7	**Professional**	The Bidder should have at least 100 full time software professionals on company roll across India as on 31st Mar 2025.	Self-Certificate by HR head/ authorized signatory of Bidder. Copy of PF/ESI Challan to be provided.
8	**ISO Certifications**	The Bidder should have following valid certificates. • ISO 9001-2008 or above version • ISO 27001-2013 or above version • ISO 20000-1:2011 or above version	Copy of certificates shall be uploaded.
9	**CMMI certification**	The Sole/Lead Bidder should have following valid certificate. • SEI/CMMI Institute certified CMMI level 3 or above.	Copy of certificate shall be uploaded.
10	**Power of Attorney/ Board of resolution**	The Bidder should submit Power of Attorney or Board resolution for authorized signatory.	Copy of power of attorney or board resolution shall be uploaded
11	**Credentials and Experience**	The Bidder should have successfully implemented at least one project in the Government sector in India during the last five financial years (2021–22, 2022–23, 2023–24, 2024–25, and 2025–26), involving ICT-based Smart Virtual Clinic solutions. The project should include video	Work order/ Contract Agreement clearly highlighting the scope of work and value of the contract /work order.

		consultation facilities, integration with medical devices, and comprehensive operations and maintenance services. Further, the Bidder should have experience of implementing such solutions in at least 80% of the tendered locations. Additionally, the value of the project executed by the Bidder shall not be less than 50% of the estimated cost put to tender.	
12	**Joint Venture**	No Consortium will be allowed as a part of bid.	Written Self-declaration shall be uploaded
13	**Land Sharing with India**	Any bidder from a country which shares a land with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority (as per Government Order No. FD 455 Exp-12 2020 Bengaluru Dated: 25-08-2020)	Registration granted by the Competent Authority of Government of Karnataka. Certificates as per Annexure – 11 & Annexure - 12

Technical Evaluation criteria

Sl. No	Specific Requirements	Documents Required	Marks
1	The Bidder should have the following valid certifications at the time of bid submission. ➢ ISO 9001:2008 or latest ➢ ISO 20000-1:2011 or latest ➢ ISO 27001:2013 or latest ➢ SEI CMMI Level 3 or Above ***Marks would be awarded based as below:*** ➢ ISO 9001:2008 or latest: **1 Mark** ➢ ISO 20000-1:2011 or latest: **1 Mark** ➢ ISO 27001:2013 or latest: **1 Mark** ➢ SEI CMMI Dev Level 3: **2 Marks** OR SEI CMMI Dev Level 5: **3.5 Marks** ➢ SEI CMMI SVC Level 3: **2 Marks** OR	Copy of certificates shall be uploaded.	10

	SEI CMMI SVC Level 5: **3.5 Marks**		
2	The Bidder should have successfully implemented at least one project in India during the last 5 financial years comprising of the following ICT based components in Smart Virtual Clinic Solutions including Operations and Maintenance **<u>Experience in Smart Virtual Clinics Project Implementation – 40 Marks</u>** A. No of Smart Virtual Clinic Implemented as per the scope • Up to 17 Clinics – 10 **Marks** • If > 18 Clinics and <= 30 Clinics – **15 Marks** • If > 30 clinics – **20 Marks** **B. Value of the Projects** • Up to 10 Crores – 10 **Marks** • If > 10 Crore and <= 20 Crores – 15 **Marks** • If >20 Crores – 2**0 Marks**	Work order/ Contract Agreement clearly highlighting the scope of work and value of the contract /work order.	40
3	The Bidder should have average annual turnover of at least INR 19.5 Crores in last three financial years., (FY 2020-21, 2021-22 & 2022-23, 2023-24 & 2024-25) ***Marks would be awarded based as below:*** • Up to 19.5 Crore – **3 Marks** • If >19.6 Crore and <= 50 Crores – **5 Marks** • If >50 Crores – **10 Marks**	Certificate from the Statutory Auditor on turnover details for the last Three FYs. The certificate must have UDIN issued by ICAI.	10
4	The Sole/Lead Bidder should have at least 100 full time employees on payroll of the Bidder, working in the Software professional business unit as on bid submission date. ***Marks would be awarded based as below:*** • If >100 Employees and <= 150 Employees – 3 **Marks** • If >150 Employees and <= 200 Employees – 5 **Marks**	Self-Certificate by HR head/ authorized signatory of Bidder	10

	• If >200 Employees – 10 **Marks**		
5	**Solution proposed for the SVC Project** ***Marks would be awarded based as below:*** • Approach and methodology: **10 Marks** • Demonstration of working application for the proposed solutions: **20 Marks**	Presentation and SVC Solution demonstration by Bidders	30
	Total Marks		**100**

Selection Method

Final evaluation shall be based on QCBS Quality and Cost Based Selection (QCBS) method will be followed during the overall selection process. Based on the evaluation of technical proposal, the technically qualified bidders shall be ranked highest to lowest Technical Score (ST) in accordance to the marks obtained during the technical evaluation stage.

There shall be 75% weightage to technical score and 25% weightage to financial score. The individual bidder's financial score (SF) will be evaluated as per the formula given below:

SF= [Fmin / Fb] * 100 (rounded off to 2 decimal places) where,

SF= Normalized financial score of the bidder under consideration

Fmin=Minimum financial quote among the technically qualified bidders

Fb= Financial quote of the bidder under consideration

Combined Score (S) = ST * 0.75 + SF * 0.25

Where ST = Technical score secured by the bidder. Where SF = Financial score secured by the bidder.

The bidder securing the highest evaluated Combined Score(S) will be awarded the contract observing due procedure.

In the event that two or more Bidders achieves the same combined score (the "Tie Bidders") for the Project, the BCCC may:

adjudicate the bidder securing the highest technical score in the "Relevant Past Experience" Section of Technical Evaluation Table as the "Best responsive bid" for award of the Project;

In Case there is again a tie in scores of the "Relevant Past Experience" Section of Technical Evaluation Table adjudicate the bidder securing the highest technical score in the "Resources Proposed for deployment" Section of Technical Evaluation Table as the "Best responsive bid" for award of the Project;

Note:

Projects executed for Bidder's own or bidder's group of companies shall not be considered.

The presentation on Technical Proposal shall be made by the Program Head /Project Manager only.

Bidder who meets the Qualification Criteria (specified in 5.3) may call, if required, for presentation of Technical Proposal with respect to above technical evaluation criteria during Technical Proposal

Evaluation. Date, Time and Venue for the presentation of Technical Proposal will be informed later to qualified bidders.

The Authority reserves right to enquire Bidder's customer where such a similar project execution has taken place.

5.4 Key Personnel Criteria

MSI shall provide an adequate number of personnel, each responsible for a specific role within the project. MSI shall provide a clear definition of the role and responsibility of each individual personnel. MSI shall have a defined hierarchy and reporting structure for various teams that shall be part of the project. MSI has to provide the list of proposed Resources for the Project. Any changes in Resource deployment will have to be approved by the Authority.

Following table indicates the minimum qualification required for Key Positions identified for this project. However, MSI shall independently estimate the teams size required to meet the requirements of Service Levels as specified as part of this tender.

The below mentioned Positions shall be Onsite throughout the entire Project Implementation.

Project Implementation Phase:

Sl. No	Position and Marks Assigned for Evaluation	Minimum Qualifications & Experience
1	Program Head	a) Education: B. Tech or B.E or MBA or MCA or M. Tech. or Master Degree in Healthcare Management b) Experience: Minimum 10 years in IT or Healthcare Sector. Should have more than 08 years of experience of handling such similar projects
2	Project Manager	a) Education: B. Tech or B.E or MBA or MCA or M. Tech. or Master Degree in Healthcare Management b) Experience: Minimum 08 years' experience in IT or Health Sector. Should have experience of more than 3 years as a Project Manager in similar projects c) Should preferably have PMP or Prince2 certification or AHIP certification

The below mentioned Positions shall be Onsite throughout the entire project Operations & Maintenance Phase.

Project Operations & Maintenance Phase:

Sl. No	Position and Marks Assigned for Evaluation	Minimum Qualifications & Experience
3	Operations Manager	a) BE or B. Tech or BSC or Master Degree or Equivalent with minimum 2 years' experience in the capacity of Operations Manager in Healthcare Sector:
4	Certified Clinical Operators	a) Graduation in Science or Diploma in Nursing OR b) Trained and certified in ophthalmoscopy and fundus camera operations OR c) Experience of having worked on high end digital clinical devices OR d) Experience of having worked on Bio Telemetry Work Experience: 2 years and above
5	Technical Support Engineers for IT & Software Platform	a) Education: B. Tech or B.E or MCA b) Experience: Minimum 2 years and above in IT or Healthcare Sector and experience of handling support activities and IT Infra Hardware experience
6	Technical Support Engineers for IT Infra & Medical Device Integration	a) Education: B. Tech or B.E or MCA b) Experience: Minimum 2 years and above in IT or Healthcare Sector and experience of handling support activities and IT Infra Hardware experience

a. Any additional or support manpower shall be estimated and should be accounted for in the Financial Bid by the Selected Bidder, so that, the project as per the scope defined and agreement are fulfilled, and the project objectives are met.

b. Program Head along with anyone from above list of Key Personnel should share weekly/monthly progress report; shall attend all the weekly/monthly meetings with Authority and, should also represent the MSI in all the important meetings.

c. MSI should submit profiles of only those resources who shall be deployed on the Project. Any change of resource should be approved by the Authority and compensated with equivalent or better resource. The Authority may interview the resources suggested by MSI before their deployment on board. It does not apply in case of change requested by the Authority.

6 Eligible Goods and Services, and OEM Criteria

Sl. No.	Eligible Goods and Services and OEM Criteria	OEM		
		Documents Required	Submitted (Yes / No)	Bid Document Ref-Page No.
1	The Bidder shall quote only one specific make and model from only one specific OEM, for each of the goods. Providing more than one option shall not be allowed. All goods quoted by the Bidder must be associated with item code and names and with printed literature describing configuration and functionality. Any deviation from the printed specifications should be clearly mentioned in the offer document by the Bidder.	Self declaration letter from OEM		
2	The OEM for each products or technology quoted should be in the business of that product or solution or technology for at least 2 (Two) years as on the date of release of the RFP.	Self declaration letter from OEM		
3	All the OEMs should have authorized presence in India either directly or through channel partner(s) as on the date of release of RFP.	Certificate of Incorporation from OEM		
4	The OEM for all active components should give a declaration that products or technology quoted are neither end-of-sale nor end-of-life as on the date of installation and commissioning and are not end-of-support till the successful completion of O&M period of the project as per Annexure 2.4 in the RFP.	Letter from OEM as per Annexure 2.4 of RFP		
5	The Bidder's proposed OEM should not have been blacklisted/banned/debarred by any State or Central Government Department or PSUs or Municipal agencies in India or abroad as on bid submission date.	Letter from OEM as per Annexure 4 of RFP		
6	The OEM should have valid ISO Certification. A copy of the same shall be submitted along with the bid.	Valid ISO Certificates		
7	Adherence to Public Procurement (Preference to Make in India) Order 2017 – DoT notification, 29/08/2018 – reg. by MoHUA.	Self declaration letter from OEM		

Note:

1) Government has issued Public Procurement (Preference to Make in India) [PPP-MII] Order 2017 vide the Department for Promotion of Industry and Internal Trade (DPIIT) Order No.P-45021/2/2017-B.E.-II dated 15.06.2017 and subsequent revisions vide Order No. P-45021/2/2017-PP(BE-II) dated 28.05.2018, 29.05.2019,04.06.2020 and 16.09.2020 to encourage 'Make in India' and to promote manufacturing and

production of goods, services and works in India with a view to enhancing income and employment. This Order is issued pursuant to Rule 153 (iii) of the General Financial Rules 2017. Further, the procurement process shall be done based on the Make in India order issued by MoHUA, Government of India. Classes of Local Suppliers based on local content as per the revised PPP-MII Order dated 04.06.2020 issued by the Department for Promotion of Industry and Internal Trade (DPIIT) are as under:

a) Class-I Local supplier - a supplier or service provider, whose goods, services or works offered for procurement, has local content equal to or more than 50%.

b) Class-II Local supplier - a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%.

c) Non-Local supplier - a supplier or service provider, whose goods, services or works offered for procurement, has local content less than or equal to 20%.

2) In furtherance of the aforesaid revised PPP-MII Order dated 04.06.2020, MeitY has notified the mechanism for calculation of local content for the Electronic Products vide Notification No. 43/4/2019-IPHW-MeitY dated 07.09.2020. And also, local content of the products should be calculated as per clause 2 of the DPIIT Order No. 45021/2/2017-PP (BE-II) dated 16.09.2020.

3) Purchase Preference:

Purchase preference will be provided as per the clause 3A of DPIIT Order No. 45021/2/2017-PP(BE-II) dated 16.09.2020.

4) Verification of local content:

False declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

5) Bidder is required to provide necessary valid certificates / documents to meet the said procurement process. Necessary Certificate/documents would be required to be furnished for the factory where the items to be supplied under this tender are proposed to be manufactured, value added in India.

7 Award of Contract

7.1 Award Criteria

a. The cost indicated in the Financial Proposal shall be deemed as final and reflecting the total cost of services and should be stated in INR only. Omissions, if any, in costing of any item shall not entitle the Bidder to be compensated and the liability to fulfill its obligations as per the Terms of Reference within the total quoted price shall be that of the Bidder. The Bidder shall bear all taxes, duties, fees, levies and other charges imposed under the Applicable Law as may be applicable. Bidder shall quote the rates inclusive of GST.

7.2 Contract Period:

Contract Period: The initial contract shall be valid for a period of two years from the date of Go live. The Contract may be extended for further period of another three-year with based on the performance of the agency on mutually agreed terms and conditions as per tender conditions.

7.3 Letter of Acceptance

The Authority will notify the successful Bidder in writing, that its Bid has been accepted. A LoA will be issued in duplicate, by the Authority to the successful Bidder and the successful Bidder shall within 7 (seven) days of receipt of LoA in acknowledgement thereof. In the event the duplicate copy of the LoA duly signed by the successful Bidder is not received by the stipulated date, the Authority may unless it consents to extension of time for submission thereof, appropriate the EMD, if any, of such Bidder as damages on account of failure of the successful Bidder to acknowledge the LoA. Upon the successful Bidder furnishing the Performance Bank Guarantee, the Authority will promptly notify each unsuccessful bidder.

7.4 Signing of Contract

The Authority shall notify the successful Bidder that its bid has been accepted. The successful Bidder shall enter into Contract with the Authority within the time frame mentioned in the Letter of Acceptance issued to the successful Bidder by the Authority. The successful Bidder shall not be entitled to seek any deviation, modification or amendment in the Contract.

7.5 Failure to Agree with the Terms & Conditions of the RFP / Contract

Failure of the successful Bidder to agree with the Terms & Conditions of the RFP / Contract shall constitute sufficient grounds for the annulment of the award, in which event Authority may take any such measure as may be deemed fit in the sole discretion of the Authority, including annulment of the Bidding Process.

7.6 BCCC's Right to Accept any Bid and to Reject any or All Bids

The Authority reserves the right to accept or reject any Bid, and to annul the bidding process and reject any or all Bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Authority's action.

7.7 Performance Bank Guarantee

a. Within fifteen (15) working days from the date of issuance of LOA, the Successful Bidder shall at his own expense submit unconditional and irrevocable Performance Bank Guarantee (PBG) an amount equivalent to 5% of contract value to the Authority in the name of Commissioner, **BCCC**.

b. The PBG shall be from a Nationalized Bank or a Scheduled Commercial Bank in the format prescribed in **Annexure 8**, payable on demand, for the due performance and fulfillment of the Contract by the Bidder.

c. All charges whatsoever such as premium; commission etc. with respect to the PBG shall be borne by the Successful Bidder.

d. The PBG shall be valid till satisfactory completion of Post Implementation Support. The PBG may be discharged/returned by Authority upon being satisfied that there has been due performance of the obligations of the bidder under the contract. However, no interest shall be payable on the PBG. The PBG shall be valid only up to the completion of Go Live + O&M Phase + AMC + 180 days.

e. In case the project is extended after the project schedule as mentioned in the RFP, the PBG shall be accordingly extended by the Successful Bidder till the extended period.

f. In the event of the Bidder being unable to service the contract for whatever reason the Authority would invoke the PBG. Notwithstanding and without prejudice to any rights whatsoever of the Authority under the contract in the matter, the proceeds of the PBG shall be payable to the Authority as compensation for any loss resulting from the Bidder's failure to complete its obligations under the Contract. The Authority shall notify the Bidder in writing of the exercise of its right to receive such compensation within 14 days, indicating the contractual obligation(s) for which the Bidder is in default.

g. The Authority shall also be entitled to make recoveries from the Bidder's bills, PBG, or from any other amount due to him under the Contract, the equivalent value of any payment made to him due to inadvertence, error, collusion, misconstruction or misstatement.

h. On satisfactory performance and completion of the order in all respects and duly certified to this effect by the Authority, Contract Completion Certificate shall be issued and the PBG would be returned to the Successful Bidder.

7.8 Right to Vary Quantity

a. After the award of Contract, the quantity of goods, works or services originally specified in the bidding documents may be increased / decreased by up to 25%, as necessary. It shall be without any change

in the unit prices or other terms and conditions of the Bid and the bidding documents.

b. If the Authority does not procure any subject matter of procurement or procures less than the quantity specified in the bidding documents due to change in circumstances, the bidder shall not be entitled for any claim or compensation except otherwise provided in the bidding document.

c. Repeat orders for extra items or additional quantities may be placed, if it is provided in the bidding document, on the rates and conditions given in the contract if the original order was given after inviting open competitive bids. Delivery or completion period may also be proportionally increased.

7.9 Warranty & Maintenance

a. Successful Bidder shall also provide complete maintenance support for all supplied hardware and other components as outlined in this RFP for a period of 24 months from the date of Go-Live.

b. At the time of delivery, the bidder shall warrant that the goods supplied under the Contract are new, unused, of the most recent version/models and incorporate all recent improvements in design and materials unless provided otherwise in the Contract.

c. The Authority or designated representatives of the bidder shall promptly notify Successful Bidder in writing of any claims arising under this warranty. Upon receipt of such notice, the Successful Bidder shall, within the warranty period and with all reasonable speed, repair or replace the defective systems, without costs to the Authority and within time specified and acceptable to the Authority.

d. If the Successful Bidder, having been notified, fails to remedy the defect(s) within the period specified in the Contract, the Authority may proceed to take such reasonable remedial action as may be necessary, at the Successful Bidder's risk and expense and without prejudice to any other rights, which the Authority may have against the Bidder under the Contract.

e. During the comprehensive warranty period, the Successful Bidder shall provide all product(s), equipment, H/w, S/w etc., within 15 days of their availability and should carry out installation and make operational the same at no additional cost to the Authority.

f. The Successful Bidder hereby warrants the Authority that:

i. The supplied product(s), equipment, H/w, S/w etc meeting all the requirements as outlined in the RFP and further amendments if any and provides the functionality and performance, as per the terms and conditions specified in the Contract.

ii. The proposed product(s), equipment, H/w, S/w etc shall achieve parameters delineated in the technical specification/requirement.

iii. The Successful Bidder shall be responsible for warranty & maintenance services from licensers of products included in the systems for a period of 2 (Two Years onsite 100% comprehensive warranty after successful commissioning of system or after go-live).

iv. The Successful Bidder shall ensure the maintenance of the acceptance criterion/standards in respect of the systems during the warranty and maintenance period.

8 Scope of Work

8.1 Background

Smart City and BBMP has been initiating and running various society connected citizen centric programs and they have mastered the art of handling and managing the crisis that the city faces. Recent example has been the way COVID-19 management is being managed and the city was kept under control in spite of an infinite number of issues and obstructions came in front while execution.

Having understood the strength of digitization and the enablement of technology in healthcare management, BBMP, under its **BCCC** Project initiative, have decided to implement Smart Virtual multispecialty clinics at assembly constituency level and ensure that every citizen, in particular the urban poor, is provided with world class healthcare almost at their doorstep.

Goals:

- Super-specialty consultation at Primary Health Centers (PHCs)
- Reduced patient load on secondary and tertiary hospitals
- Availability of multi-specialty care at one location
- Addresses scarcity of specialized doctors
- Optimal utilization of doctors (one-to-many model)
- Improved access to remote and underserved areas
- Reduced financial burden on patients

8.1.1 Existing System

SN	SVC System	Details
1	Primary Healthcare centers	❖ Bengaluru has about 181 Primary Healthcare centers, 22 Hospitals, 32 Family Welfare Centers, 24 Maternity Centers and 6 Referral Hospitals. ❖ Primary healthcare centers are predominantly used by the citizens of lower income group.

2	Specialties available	❖ Majority of the Primary healthcare centers are single specialty centers with the services available related to general medicine only.
3	Monitoring	❖ Real time monitoring of patient movement and treatment process is not possible as the PHCs don't have integrated technology platform.
4	Technology platforms	❖ At the moment the technology platform named e-Hospital (which is based on patient mobile number as identification) is being used for patient registrations
5	Web Portal	❖ There no web portal covering the availabilities of PHCs and also functioning of PHCs.
6	Digital clinical equipment	❖ Majority of the Clinical devices used are analog devices. There are no digital devices are being used.
7	Patient Apps	❖ There is no mobile patient applications related to the patient of PHCs.
8	Medical Records	❖ All the medical records including perception s and records are available as either paper document / hard copy

8.1.2 Challenges of Current Systems

- **Inadequate Primary Care**
  a. As PHCs are designed to provide only general medicine, patients requiring consultation are not getting any services. This is causing unnecessary over load on the community hospitals OPD Sections.
  b. Bengaluru has severe shortage of Specialty doctors. Hence it is not possible to have many specialty doctors in every PHCs.
  c. As the PHCs are inadequately equipped with all the necessary clinical diagnosis devices, patients are made to take the diagnostic test done by external providers, which is expensive and causing a huge inconvenience.
- **Medical Records for Treatment Continuity**
  a. As the medical records are available in the form of paper documents, doctors would not have access to them during the subsequent visits of patients unless the patients carry them every time.
  b. Current system has no integrated technology platform; their medical history is not available at the community hospital whenever the patient gets referred to the community hospitals from PHCs.
- **Electronic Health Record Standards 2016**

  The System shall comply with Electronic Health Record Standards – 2016.

- **Identification and Demographic Information of patient**
  a. Patient Unique Identifier is necessary in a health record system that identifies a patient
     i. UIDAI Aadhar Number (Preferred where available)
     ii. Both of the following, if Aadhar is not available
     iii. Local Identifier (As per scheme used by HSP)
     iv. Any Central or state Government Issued Photo Identity Card Number
  b. Links all artifacts and records of the patient
  c. Recommended standards:
     i. ISO/TS 22220:2011 Health Informatics – Identification of Subjects of HealthCare
     ii. MDDS- Demographic (Person Identification an Land Region Codification) Version 1.1 from E-Governance Standards, Govt. of India

- **Patient Data**

  The current system is capturing the only the patient registration and there is no provision for stakeholders to review the functioning of PHCs using real time analytics and dashboards. The information about effectiveness of treatment and health condition of patients is also not available.

- **Other Areas**
  a. Manual, error-prone data collection process
  b. No tool for evaluating contractor performance and payment related issues
  c. Absence of Management Information System, Attendance and manpower work efficiency

8.2 General

a. MSI shall engage early in active consultations with **BCCC** and BBMP to establish a clear and comprehensive project plan in line with the project objectives.

b. Study and assess the existing systems and MSI shall assess existing infrastructure's current ability to support the entire solution and integrate the same with the proposed solution wherever applicable and possible.

c. MSI shall judiciously evaluate the resources and time planned for undertaking the current state assessment, given the overall timelines and milestones of the project.

d. MSI shall be responsible for supply of all the Products/equipment as indicated (but not limited to) in the tentative Bill of Materials included in the RFP and their appropriate quantity & capacity.

e. MSI shall be responsible for supply of passive components indicated in the Bill of Materials section of the RFP

f. Supply, Installation, and Commissioning of entire solution at all the locations.

g. MSI shall provide the bandwidth required for operationalizing the project. The bandwidth requirement shall be analyzed and procured by the SI.

h. MSI shall Install and commission connectivity across all designated locations.

i. MSI shall establish high availability, reliability and redundancy of the network elements to meet the Service Level requirements.

j. MSI shall be responsible for planning and design of the access network architecture (access controllers, backhaul connectivity, routers, switches, etc.) to meet the technical, capacity and service requirements of the Project.

k. MSI shall be responsible for up-gradation, enhancement and provisioning additional supplies of network (including active / passive components), hardware, software, etc. as requisitioned by Authority.

l. MSI shall ensure that the infrastructure provided under the project shall not have an end of life within 24 months from the date of bidding.

m. MSI shall ensure that the end of support is not reached during the concurrency of the Contract and 5 years thereafter.

n. MSI shall ensure compliance to all mandatory government regulations as amended from time to time.

o. The MSI shall ensure that all the peripherals, accessories, sub-components required for the functionality and completeness of the solution, including but not limited to devices, equipment, accessories, patch cords (fiber), cables, software, licenses, tools, etc. are provided according to the requirements of the solution.

p. **BCCC** shall not be responsible if the MSI has not provisioned some components, sub-components, assemblies, sub-assemblies as part of Bill of Materials in the RFP. The MSI shall have to provision these &

other similar things to meet the solution requirements at no additional cost and time implications to **BCCC**.

q. All the software licenses that the MSI proposes shall be perpetual software licenses along with maintenance, upgrades and updates for the currency of the contract. The software licenses shall not be restricted based on location and Authority shall have the flexibility to use the software licenses for other requirements if required.

r. The MSI shall ensure there is a 24x7 comprehensive onsite support for duration of the contract for respective components to meet SLA requirement. The MSI shall ensure that all the OEMs have an understanding of the service levels required by Authority. MSI is required to provide the necessary MAF (Manufacturer Authorization Form) as per the format provided in the RFP in support of OEMs active support in the project.

s. Considering the criticality of the infrastructure, MSI is expected to design the solution considering the RFP requirement of no single point of failure with high level of redundancy and resilience to meet the network uptime requirements.

t. MSI shall be responsible for periodic updates & upgrades of all equipment, cabling and connectivity provided at all locations during the contract period.

u. MSI shall be responsible for setting up / building / renovating the necessary physical infrastructure including provisioning for network, power, rack, etc. at all the locations.

v. MSI is expected to provide following services, including but not limited to:

w. Provisioning Medical equipment, Civil and Electrical items, IT components, Cloud services etc., in line with the proposed authority's requirements.

8.3 Limiting Liability

a. Clinical workflow and operations

i. Clear protocols are established for inter clinical operations and the operator signs a declaration confirming the understanding of protocol

ii. These protocols are designed to meet the requirements of various specialties of consultations

iii. The protocol includes capturing the patient information and assessing some of the basic parameters of health like, Blood pressure, Height and Weight along with complete information on patient's medical condition and allergic restrictions etc.

iv. The information collected would be used to decide whether the case falls under the scope / acceptable levels of Telemedicine and virtual clinical consulting or needs to be directed to a different facility.

b. Operator qualification

i. Paramedic clinical operators are trained and certified to operate all the devices in the virtual clinic setup.

ii. Operators would be aware of the DOs and DONTs of clinical operation procedure and under no circumstances they would cross the protocol guidelines

c. Patient declaration

i. Every patient before the beginning of virtual clinic consultation would sign a simple declaration either physically or on the patient app

ii. The declaration would protect all the stakeholders within the system including the doctors, clinical operators, technology platform developers, in the event of unforeseen circumstances.

d. The Authority (BCCC) will issue SOPs / Guidelines from time to time for seamless operations.

8.4 Inspection Phase

MSI will be responsible for preparation of Detailed Project Plan. The Plan shall address at the minimum the following:

a. Define an organized set of activities for the project and identify the interdependence between them

b. Resource planning and loading for each phase/activity. This must also indicate where each resource would be based during that phase, i.e. onsite at **BCCC** office or off site at MSI premises

c. Establish and measure resource assignments and responsibilities

d. Highlight the milestones and associated risks

e. Communicate the project plan to stakeholders with meaningful reports

f. Measure project deadlines and performance objectives

g. Project Progress Reporting. During the implementation of the project, MSI should present weekly reports. This report will be presented in the steering committee meeting to **BCCC**. The report should contain at the minimum the under mentioned:
   i. Results accomplished during the period (weekly)
   ii. Cumulative deviations from the schedule date as specified in the finalized Project Plan
   iii. Corrective actions to be taken to return to planned schedule of progress
   iv. Plan for the next week
   v. Proposed revision to planned schedule provided such revision is necessitated by reasons beyond the control of MSI
   vi. Support needed
   vii. Highlights/lowlights
   viii. Issues/Concerns
   ix. Risks/Show stoppers along with mitigation

h. Identify the activities that require the participation of client personnel (including **BCCC**, the Program Management Unit etc.) and communicate their time requirements and schedule early enough to ensure their full participation at the required time.

8.5 Requirement Phase

MSI must perform the detailed assessment of the requirements and Solution requirements as mentioned in this RFP. Based on the understanding and its own individual assessment, MSI shall develop & finalize the System Requirement Specifications (SRS) in consultation with **BCCC** and its representatives. While doing so, MSI at least is expected to do following:

a. MSI shall conduct a detailed survey and prepare a gap analysis report, detailed survey report of the physical and field infrastructure requirements. MSI shall duly assist the department in preparing an action plan to address the gaps.

b. MSI shall study and revalidate the requirements given in the RFP with **BCCC** and submit as an exhaustive FRS document. MSI shall develop the FRS and SRS documents.

c. MSI shall develop and follow standardized templates for requirements capturing and system documentation.

d. MSI must maintain a traceability matrix from SRS stage for the entire implementation.

e. MSI must get the sign off from user groups formed by **BCCC**.

f. For all the discussion with the **BCCC** team, MSI shall be required to be present at **BCCC** office with the requisite team members.

g. MSI shall directly interact with electricity boards for provision of mains power supply at all desired locations for field solution. **BCCC** shall facilitate the same. One-time connection charge for electricity, if applicable, shall be borne by **BCCC**. Payment of recurring charges like electricity bills and fuels for DG set at SVC - CCCC shall be the responsibility of **BCCC**. Provision of stand-by and regulated power supply (i.e. with UPS, stabilizer, DG Set etc.) at all edge devices shall be the responsibility of the MSI and recurring charges for the same will form part of Opex.

h. Comprehensive Training Schedule/Plan to be submitted for approval by **BCCC**.

8.6 Design Phase

MSI shall make a detailed Design document for proposing the solution as per the Design Considerations detailed in this and the subsequent Sections and all Appendices.

8.7 Development Phase

MSI shall carefully consider the scope of work and provide a solution that best meets the project's requirements. Considering the scope set in this RFP, MSI shall carefully consider the solutions it proposes and explicitly mention the same in the technical proposal. The implementation of the application software will follow the procedure mentioned below:

a. Software Products (Configuration and Customization): Following needs to be adhered for the proposed software products:
   i. MSI will be responsible for supplying the application and licenses of related software products and installing the same so as to meet project requirements.

ii. MSI shall have provision for procurement of licenses in a staggered manner as per the actual requirement of the project.

iii. MSI shall perform periodic audits to measure license compliance against the number of valid End User software licenses consistent with the terms and conditions of license agreements, volume purchase agreements, and other mutually agreed upon licensed software terms and conditions. MSI shall report any exceptions to license terms and conditions at the right time to **BCCC**. However, the responsibility of license compliance solely lies with MSI. Any financial penalty imposed on **BCCC** during the contract period due to license non-compliance shall be borne by MSI.

iv. As per requirement of complex solution implementation MSI has to ensure that OEM own resources & MSI best technical resources are deployed in this project.

v. The OEM should provide the specific design (OEM Low Level Design, Core Implementation) support expertise to make sure that their supplied technology & products work as per the design objectives.

vi. OEM to design and implement the complete security policy and workflow as per industry best practice in consultation with Customer to meet their Business requirements.

vii. MSI should provide the overall program management and OEM to ensure that the solution which may include multiple technologies from various OEM, to work together seamlessly as per the design goals. The seamless integration with all devices would be MSIs responsibility for the respective products offered.

viii. MSI shall also supply any other tools & accessories required to make the integrated solution complete as per requirements. For the integrated solution, MSI shall supply:

b. Medical Equipment, Civil and Electrical work

c. System Documentation: System Documentation both in hard copy and soft copy to be supplied along with licenses and shall include but not limited to following. Documentation to be maintained, updated and submitted to **BCCC** regularly:

i. Functional Requirement Specification (FRS)

ii. High level design of whole system

iii. Low Level design for whole system / Module design level

iv. System Requirements Specifications (SRS)

v. Any other explanatory notes about system

vi. Traceability matrix

viii. RACI Matrix (Responsible, Accountable, Consulted, Informed)

viii. Technical and product related manuals

ix. Installation guides

x. User manuals

xi. System administrator manuals

xii. Toolkit guides and troubleshooting guides

xiii. Other documents as prescribed by **BCCC**

xiv. Quality assurance procedures

xv. Change management histories

xvi. Version control data

xvii. SOPs, procedures, policies, processes, etc. developed for **BCCC**

xviii. Programs

- Entire source codes as applicable
- All programs must have explanatory notes for understanding
- Version control mechanism
- All old versions to be maintained
- Test Environment:
- Detailed Test methodology document
- Module level testing
- Overall System Testing
- Acceptance test cases

(These documents need to be updated after each phase of the project and to be maintained and updated during the entire project duration. The entire documentation will be the property of **BCCC**.)

8.8 Integration Phase

The SVC Central Clinical Command Centre should be integrated with feeds of all tracks/components deployed under this Project. MSI shall provide the testing strategy including traceability matrix, test cases and shall conduct the testing of various components of the software developed/customized and the solution as a whole. The testing should be comprehensive and should be done at each stage of development and implementation to enable city for better decision management and planning.

SVC & CCCC Integration:

System Overview & Description:

The project scope involves setting up of Smart Virtual Clinics at 22 Primary Healthcare Centre's (PHC's) locations identified by Bengaluru Central City Corporation (BCCC) as per list provided in the RFP, setting up of a Central Clinical Command Center (CCCC) for doctors to sit and remotely consult, implementation of an integrated modular technology platform, development of a mobile application for scheduling appointment and access medical records, operation and maintenance of the entire system and housekeeping of SVCs and CCCCs duly meeting clinical hygiene requirements.

The Smart Virtual Clinics technology platform is designed considering the ease of usage and best levels of user interaction. The platform is designed and developed on Spring Boot micro service architecture. The application is cloud hosted and highly scalable.

The key components of the technology platform are:

a. Web based Interface for clinical operations at virtual clinics. This covers all the operations of the virtual clinic including the patient registration and integrating all the digital clinical equipment within the Smart Virtual Clinics.
b. Web based interface with dual monitors for doctors in the central clinical command center.
c. Web based user interface for tech support engineers to continuously monitor the status on real time basis.
d. CRM for tech support and help desk assistance.
e. Web interface for key stakeholders with an access to review governance real time dashboards.
f. Mobile apps (Native / Hybrid technology platform) for patients for scheduling appointments and accessing EMRs.

Description of Integration:

The SVC Central Clinical Command Centre should be integrated with Integrated Command and Control Centre (ICCC) to monitor the services provided by SVC like Tele Medicine Consultations, feeds of all tracks/components deployed under this Project. System Integrator shall provide the testing strategy including traceability matrix, test cases and shall conduct the testing of various components of the software developed/customized and the solution as a whole. The testing should be comprehensive and should be done

at each stage of development and implementation to enable city for better decision management and planning.

ICCC integrates with SVC listed services to monitor and show case the details with real time status on ICCC console to improve health outcomes in Bengaluru **BCCC** and manage the operations from command control centre.

ICCC System will be able to receive the emergency incidents and auto initiate the SOP to assign the activities to relevant authorities and informing the BCCC PHC's / Health Dept. to take necessary actions.

8.9 Go-Live Preparedness and Go-Live

a. MSI shall prepare and agree with **BCCC**, the detailed plan for Go-Live (in-line with **BCCC**'s implementation plan as mentioned in RFP).
b. MSI shall define and agree with **BCCC**, the criteria for Go-Live.
c. MSI shall ensure that all the data migration is done from existing systems. BCCC will provide details to the MSI
d. MSI shall submit signed-off UAT report (issue closure report) ensuring all issues raised during UAT are being resolved prior to Go-Live.
e. MSI shall ensure that Go –Live criteria as mentioned in User acceptance testing of Project is met and MSI needs to take approval from **BCCC** team on the same.
f. Go-live of the application shall be done as per the finalized and agreed upon Go-Live plan.

8.10 Compliance to SLA

a. MSI shall ensure compliance to uptime and performance requirements of project solution and any upgrades/major changes to the Smart Virtual Clinics and Central Clinical Command Centre System shall be accordingly planned by MSI for ensuring the SLA requirements.
b. MSI shall be responsible for measurement of the SLAs at the CCCC System level as well as at the user level with the help of the enterprise monitoring tool on a periodic basis.
c. Reports for SLA measurement must be produced to **BCCC** officials as per the project requirements.

8.11 Compliance to Standards & Certifications

a. For a large and complex set up such as the Project, it is imperative that the highest standards applicable are adhered to. In this context, MSI will ensure that the entire Project is developed in compliance with the applicable standards.
b. During project duration, MSI will ensure adherence to prescribed standards as provided below

Table: Standards & Certifications for Compliance

SN	Component/Application/System	Prescribed Standard
1.	Information Security	ISO 27001
2.	IT Infrastructure Management	ITIL specifications
3.	Service Management	ISO 20000 specifications
4.	Project Documentation	IEEE/ISO/CMMi (where applicable) specifications for documentation

c. Apart from the above MSI need to ensure compliance of the project with Government of India IT security guidelines including provisions of:

i. The Information Technology Act, 2000 and amendments thereof and Guidelines and advisories for information security published by CERT- In/MeitY (Government of India) issued till the date of publishing of tender notice. Periodic changes in these guidelines during project duration need to be complied with.

d. While writing the source code for application modules MSI should ensure high- quality documentation standards to improve the readability of the software module. An illustrative list of comments that each module contained within the source file should be preceded by is outlined below:

i. The name of the module
ii. The date when module was created
iii. A description of what the module does
iv. A list of the calling arguments, their types, and brief explanations of what they do
v. A list of required files and/or database tables needed by the module
vi. Error codes/Exceptions
vii. Operating System (OS) specific assumptions
viii. A list of locally defined variables, their types, and how they are used
ix. Modification history indicating who made modifications, when the modifications were made, and what was done.

e. Quality Audits

i. **BCCC**, at its discretion, may also engage independent auditors to audit any/some/all standards/processes. MSI shall support all such audits as per calendar agreed in advance. The result of the audit shall be shared with MSI who has to provide an effective action plan for mitigations of observations/non-compliances, if any.

ii. MSI should comply with all the technical and functional specification provided in various sections in this RFP document.

8.12 Testing and Acceptance Criteria

MSI shall demonstrate the following mentioned acceptance criteria prior to acceptance of the solution as well as during project operations phase, in respect of scalability and performance etc. MSI may propose further detailed Acceptance criteria which **BCCC** will review. Once **BCCC** provides its approval, the Acceptance criteria can be finalized. In case required, parameters might be revised by **BCCC** in mutual agreement with bidder and the revised parameters shall be considered for acceptance criteria. A comprehensive system should be set up that would have the capability to log & track the testing results, upload & maintain the test cases and log & track issues/bugs identified.

Note:

a. MSI will be responsible to engage STQC (Standardization Testing and Quality Certification) to conduct the assessment/review of the system before Go-Live. The STQC auditor shall be approved by **BCCC**.
b. MSI shall engage with the STQC auditor at the requirement formulation stage itself. This is important so that unnecessary re-work is avoided, and the audit is completed in time. The audit needs to be completed before Go-Live of different phases. MSI needs to prepare and provide all requisite information/documents to STQC suitor and ensure that there is no delay in overall schedule.
c. The cost of rectification of non-compliances shall be borne by MSI.

8.13 Factory Testing & Pre-Dispatch Inspection

a. Successful MSI shall have to submit Factory Test Certificate for all the CCCC and ICT Equipment (Active & Passive) before the actual supply of the items. MSI has to provide MAF (OEM warranty certificate) for all the CCCC & ICT Active Equipment.

b. **BCCC** reserve the right to visit the OEM premises for Pre-Despatch Inspection of all the CCCC & ICT Active Equipment thru the Technical committee of minimum 3 persons. All the supply for the approved quantity will happen after clearance of such Technical committee.

8.14 Final Acceptance Testing

The final acceptance shall cover 100% of the Project, after successful testing by **BCCC**; a Final Acceptance Test Certificate (FAT) shall be issued by **BCCC** to SI. Prerequisite for Carrying out FAT activity:

a. Detailed test plan shall be developed by MSI and approved by **BCCC**. This shall be submitted by MSI before FAT activity to be carried out.

b. All documentation related to **BCCC** Project and relevant acceptance test document (including Medical equipment, IT Components, Non-IT Components etc.) should be completed & submitted before the final acceptance test to **BCCC**.

c. The training requirements as mentioned should be completed before the final acceptance test.

d. Successful installation of equipment, hosting of Application, Software, etc.,

e. For IT & Non-IT equipment's / software manuals / brochures / Data Sheets / CD / DVD / media for all **BCCC** Project supplied components.

The FAT shall include the following:

a. All Medical equipment, IT Components, Non-IT Components items must be installed at respective sites as per the specification.

b. Availability of all the defined services shall be verified.

c. MSI shall be required to demonstrate all the features / facilities / functionalities as mentioned in the RFP.

d. MSI shall arrange the test equipment required for performance verification, and will also provide documented test results.

e. MSI shall be responsible for the security audit of the established system to be carried out by a certified third party as agreed by **BCCC**.

f. Any delay by MSI in the Final Acceptance Testing shall render him liable to the imposition of appropriate Penalties. However, delays identified beyond the control of MSI shall be considered appropriately and as per mutual agreement between **BCCC** and SI. In the event MSI is not able to complete the installation due to non- availability of bandwidth from the bandwidth service providers, the Supplier and **BCCC** may mutually agree to redefine the Network so that MSI can complete installation and conduct the Final Acceptance Test within the specified time.

The O&M activities have been mentioned in the subsequent sections below.

9 Detailed Scope Requirement with Specifications

9.1 Functional Scope with requirement:

The Scope involves setting up of Smart Virtual Clinics at 22 PHCs locations identified by BCCC, setting up of a Central Clinical Command Center for doctors to sit and remotely consult, implementation of a integrated modular technology platform, development of a mobile application for scheduling appointment and access medical records, operation and maintenance of the entire system and housekeeping of SVCs and CCCCs duly meeting clinical hygiene requirements.

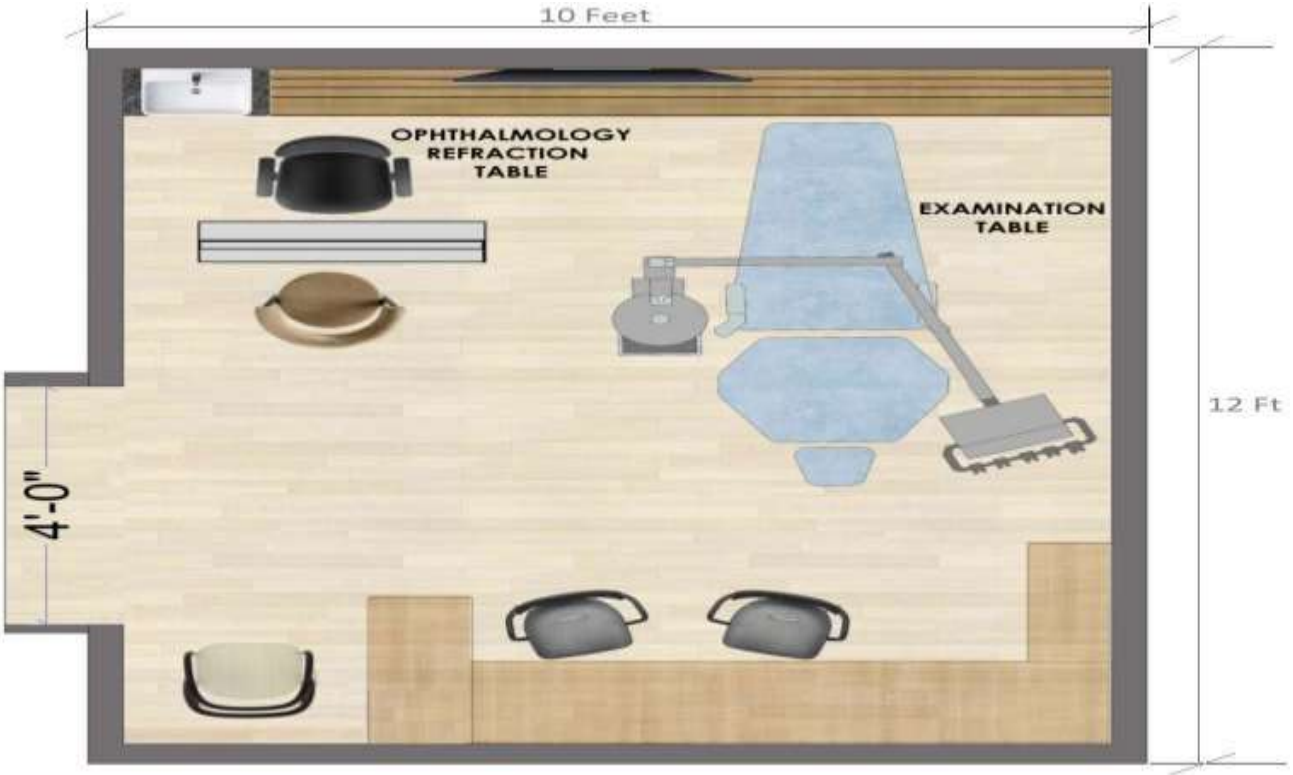
9.1.1 Setting up Smart Virtual Clinics at identified PHC locations

9.1.1.1 Design of virtual Clinic is based on the following requirements (12 X 12 feet)

- Space for electric clinical examination table with adequate free area around it for hassle free operations.
- Space for ophthalmology table and chair.
- Safe storage of clinical equipment.
- Operator's desk with a clinical chair.
- 55inch Video unit for patient - doctor interaction.

Design Guideline (Layout Changes could be made to fit into the designated area without comprising the operational layout requirements).

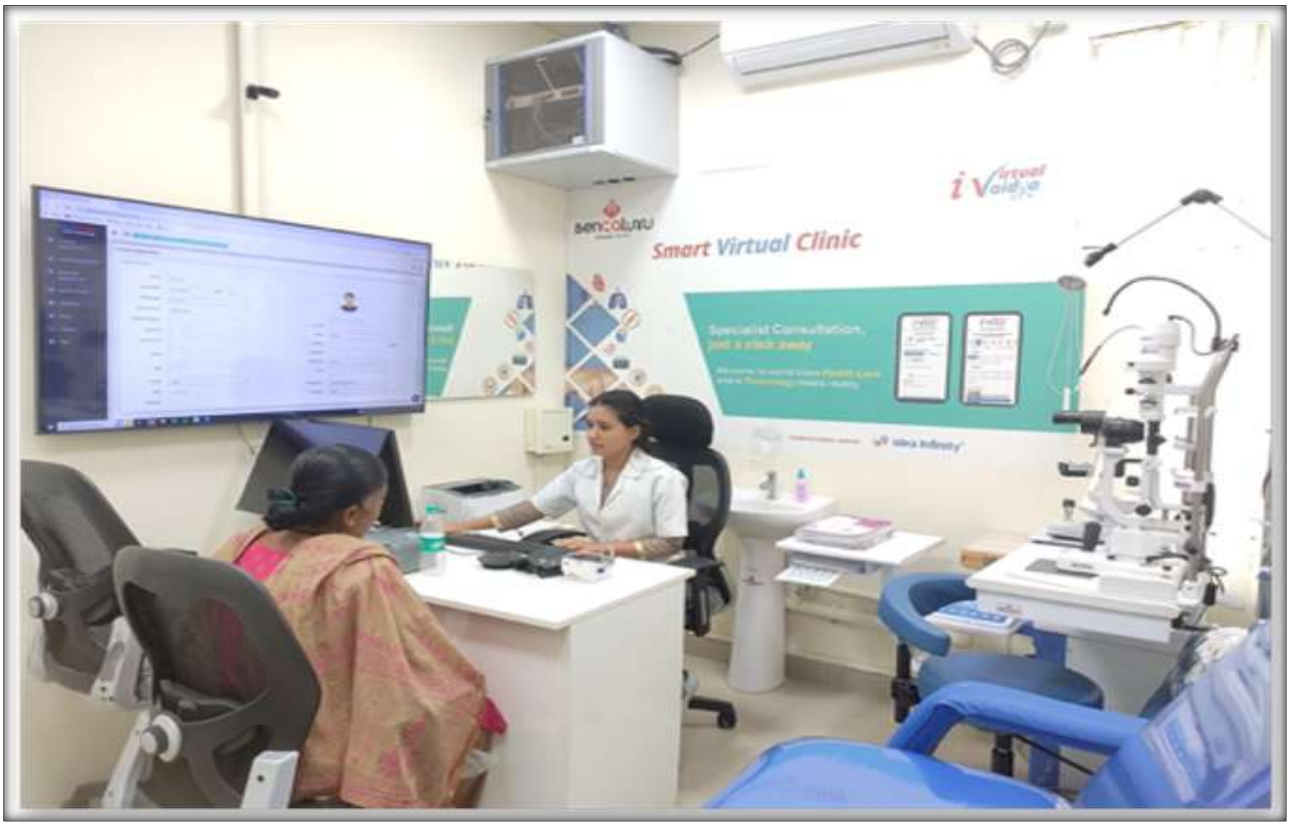
IT Infrastructure design and specifications for Smart Virtual Clinics



virtual clinic floor plan

Existing Smart Virtual Clinics Setup:

Smart Virtual Clinic
Specialist Consultation,
just a click away
BENGALURU SMART CITY LIMITED


Smart Virtual Clinic
Specialist Consultation,
just a click away

Component	Specification	Quantity
Firewall	Built in VPN and other firewall features with 8 port WAN / LAN	1
Manageable Switch	8 Port Fully manageable switch	1
Wall Mount Rack	9U Rack With Power accessories	1
Online UPS / Power Backup	Online UPS / Power Backup – 7.5 KVA including battery backup	1
Lease Lines	Lease Line 1:1 for Internet Connection – 4 MBps	1
Cables, Outlets etc.,	Cables, Laying, Outlets, Cable Managers, Patch Panels	1

9.1.1.2 Identified PHC Locations

The place identified for Smart Virtual Clinic setup with in the PHC is completely face lifted and prepared to meet all the clinical requirements.

Sl. No	Range Name	UPHC Name
1	SHANTHI NAGARA	SHANTHINAGAR UPHC
2	SHANTHI NAGARA	AUSTIN TOWN
3	SHANTHI NAGARA	ULSOOR UPHC
4	SHANTHI NAGARA	DOMLUR UPHC
5	CV RAMAN	BHUVANESHWARINAGAR UPHC
6	CV RAMAN	COX TOWN UPHC
7	CV RAMAN	MURPHY TOWN UPHC
8	CV RAMAN	OLD BAIYAPPANAHALLI
9	SHIVAJI NAGARA	TASKER TOWN UPHC
10	CHIKPETE	DASAPPA UPHC
11	CHIKPETE	POBBATHI UPHC
12	CHIKPETE	WILSON GARDEN UPHC

13	CHIKPETE	H SIDDAYYA ROAD UPHC
14	CHIKPETE	SIDDAPURA UPHC
15	CHIKPETE	JAYANAGARA UPHC
16	GANDHI NAGARA	MANVAR PETE UPHC
17	GANDHI NAGARA	SUBHASH NAGARA UPHC
18	GANDHI NAGARA	MAGADI ROAD UPHC
19	GANDHI NAGARA	SRI RAMPURA UPHC
20	CHAMARAJPETE	JJR NAGAR
21	CHAMARAJPETE	ANJINAPPA GARDEN
22	CHAMARAJPETE	IRCS UPHC

9.1.2 Central Clinical Command Center (CCCC) platform

(A provision is hereby made enabling by BCCC to execute similar works in the future through the successful bidder, using the same BOQ items and pricing as quoted in this tender)

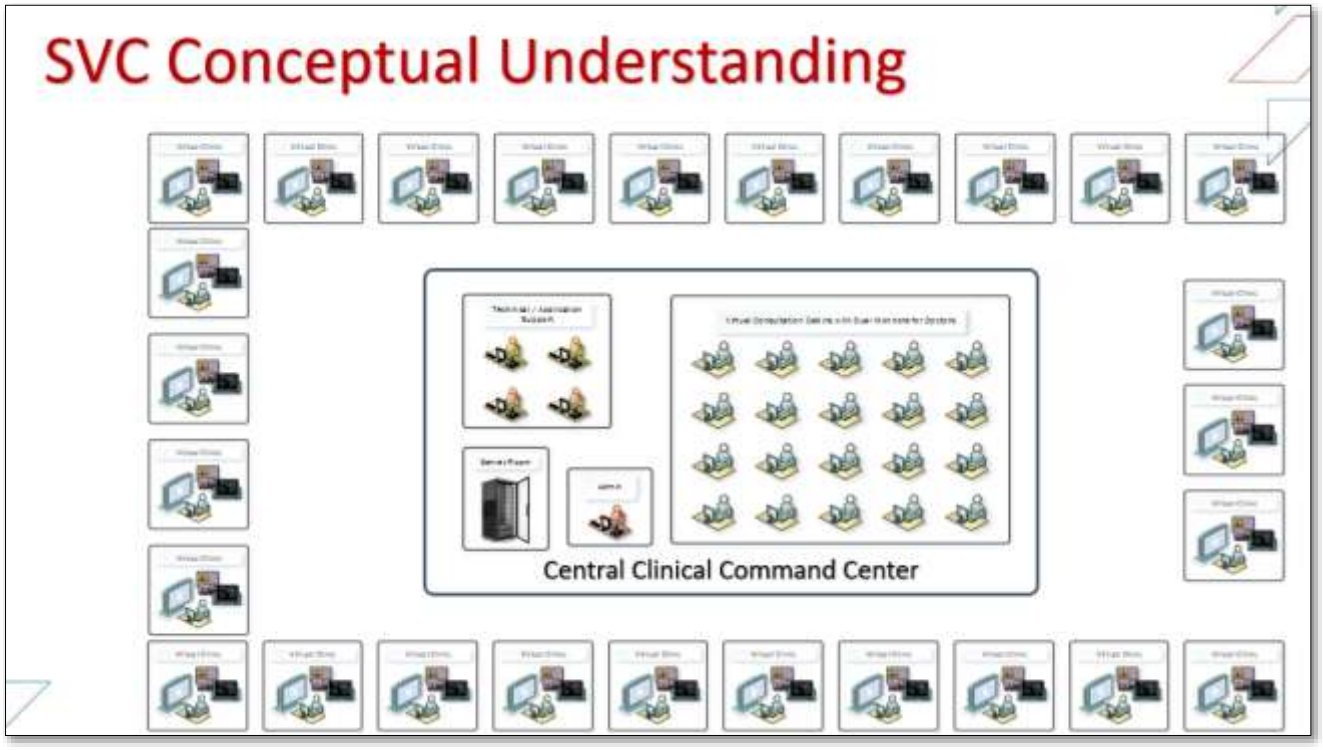
Setting up Central Clinical Command Centre:

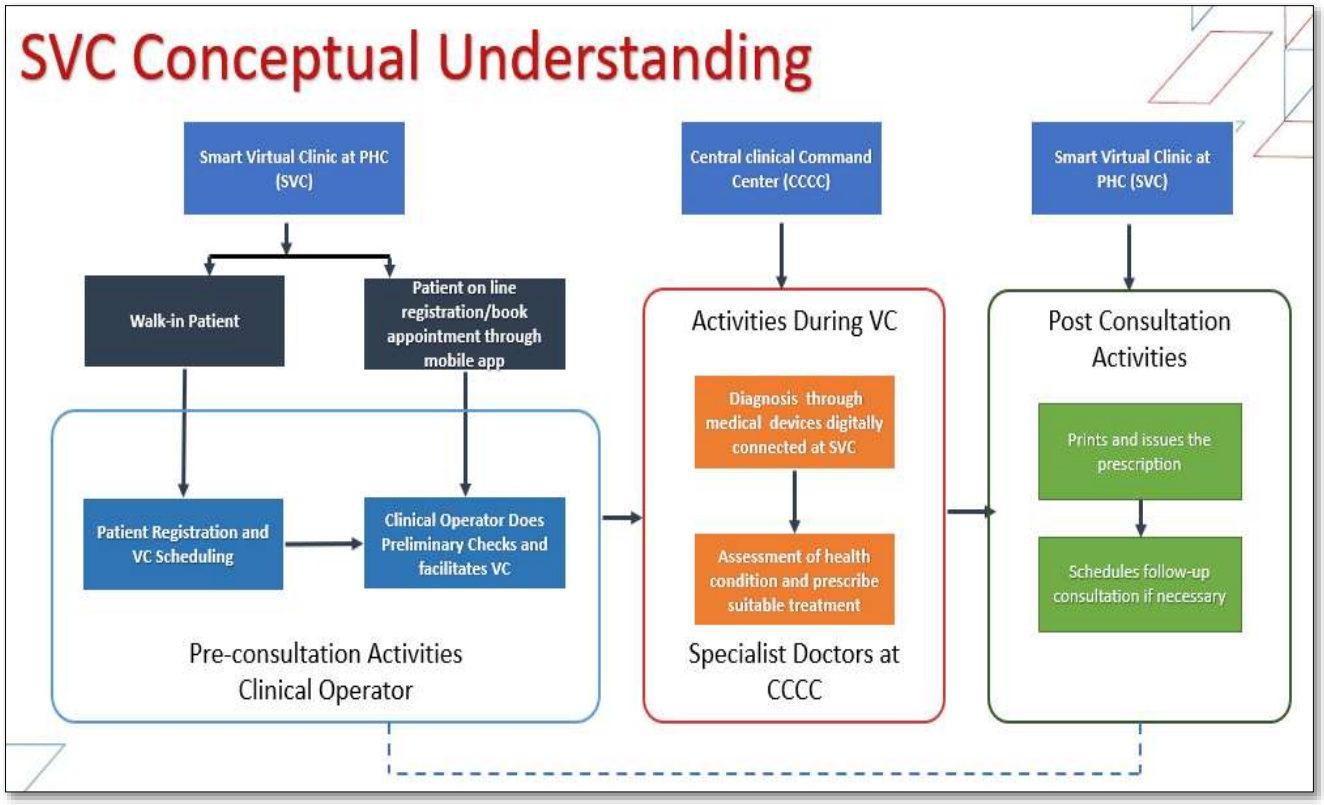
The scope includes setting up of Central Clinical Command Centre at the location with built up area of around 2500 sqtft in the location provided by the BCCC. The detailed description of deliverables is covered in the further part of the document.

Design of world class clinical central command center is based on the following requirements

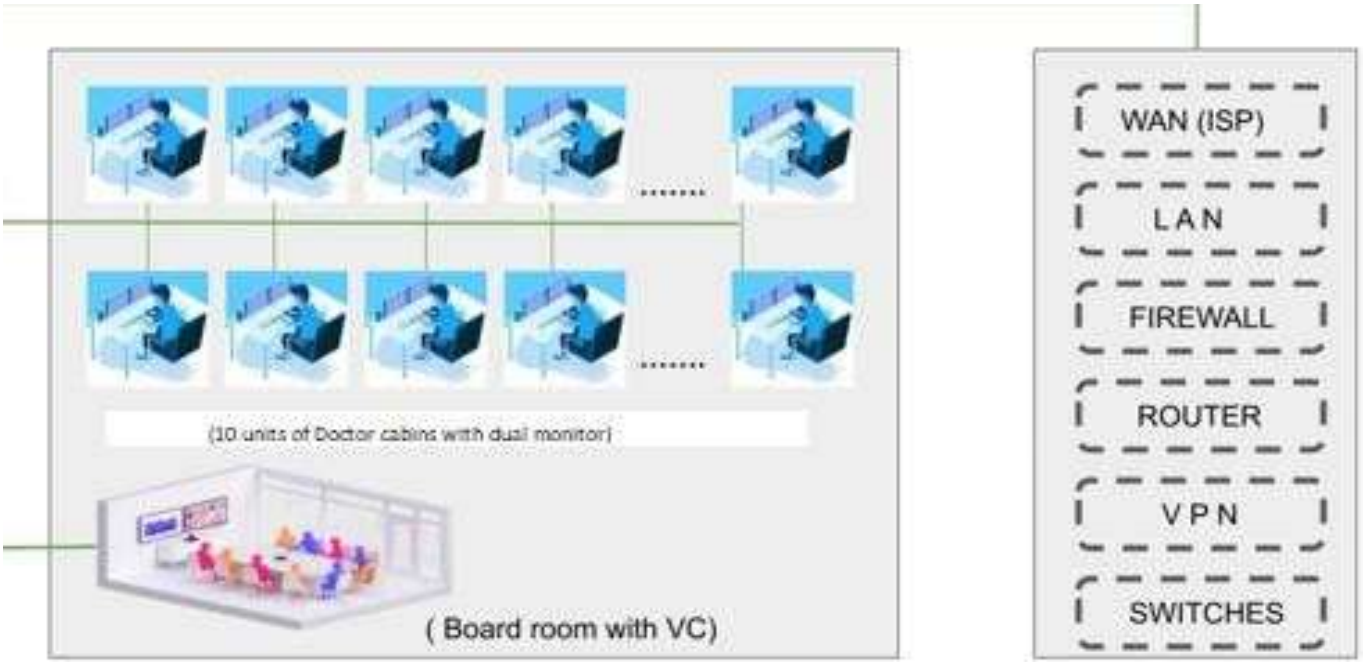
- Noise free 15 units of doctor cabins with dual monitors.
- Every cabin to have a workstation with dual monitors and a headset.
- A boardroom with video conferencing facility.
- A recreational area for doctors on the duty.
- A dedicated server room.
- Designated area designed for 2-member technical support team along with 2 member Hardware/Medical Equipment support team.
- Storage for storing critical and non-critical IT equipment.
- The approximate size for CCCC is 2500 Sq. Ft.
- The layout diagram shown in RFP is indicative and for reference only. The bidder has to design the CCCC as per their proposed solution to meet the requirements of the RFP.

IDEAS BOARD


SVC Conceptual Understanding
Central Clinical Command Center


SVC Conceptual Understanding
Smart Virtual Clinic at PHC (SVC)
Walk-in Patient
Patient on line registration/book appointment through mobile app
Patient Registration and VC Scheduling
Clinical Operator Does Preliminary Checks and facilitates VC
Pre-consultation Activities
Clinical Operator
Central clinical Command Center (CCCC)
Activities During VC
Diagnosis through medical devices digitally connected at SVC
Assessment of health condition and prescribe suitable treatment
Specialist Doctors at CCCC
Smart Virtual Clinic at PHC (SVC)
Post Consultation Activities
Prints and issues the prescription
Schedules follow-up consultation if necessary

9.1.3 Schematic Technology Infrastructure diagram



9.1.4 Smart Virtual Clinics technology platform

9.1.4.1 Modular and Cloud based tech platform

The Smart Virtual Clinics technology platform should be designed considering the ease of usage and best levels of user interaction. The application shall be hosted on cloud and should be highly scalable.

The key components of the technology platform are:

g. Web based Interface for clinical operations at virtual clinics. This covers all the operations of the virtual clinic including the patient registration and integrating all the digital clinical equipment within the Smart Virtual Clinics.
h. Web based interface with dual monitors for doctors in the central clinical command center.
i. Web based user interface for tech support engineers to continuously monitor the status on real time basis.
j. CRM for tech support and help desk assistance.
k. Web interface for key stakeholders with an access to review governance real time dashboards.
l. Mobile apps (Native / Hybrid technology platform) for patients for scheduling appointments and accessing EMRs.

Additional capability requirements for the application are:

a. Multi Tenancy application.

b. Ability to use multiple health welfare schemes during the life cycle of patient care.
c. Referral module for secondary and tertiary care.
d. Integration with pharma and diagnostic services.
e. Multi lingual.
f. Diagnostic devices integration for real time input data for diagnostics.
g. Integration with dig locker for health records.
h. Aadhar authentication services.
i. Ability to integrate with NDHM (National health development mission) platforms.
j. Open API to register with capability to integrate with central and state programs / schemes.

9.1.4.2 Product Features

User	Key Features
1. Patient	Secured login (with OTP)
	Profile page
	Schedule, edit to cancel appointment
	View documents in the EMR and share with security
	Feedback on recent treatment
	View Activities / tasks scheduled / prescribed by doctor
	Update daily activity status
	Update daily progress of result of treatment
2. Doctor	Secured login with OTP
	View patient's side readings of Clinical gadgets
	Diagnostics communication (asking questions)
	Recording diagnostics findings
	Write clinical prescription
	Write activity prescription
	Schedule next visit
	View previous medical history
	View patient's activity logs
	Write comments on activity logs
	View patients' feedback
	View analytical dashboard of various data sections
	Update leave / availability status
3. Clinical Operator	Logging securely through a registered mobile
	Register patients

	Schedule consultation for walk-in patients
	Initiate consultation for pre-scheduled patients
	View protocol and ask questions
	Capturing the of information on symptoms and problem
	Manual entry of readings of clinical devices, where ever necessary
	Test proper interface of devises (handshaking)
	Taking printout of prescription
	Preventive maintenance schedule and protocol of clinical devices
	Ensuring the functioning of devices at the end of the day and reporting
	Data analytics
	Applying leave and leave management
4.Admin	User management
	Access management
	Devices integration
	Doctor on boarding
	New device integration
	Protocols database management
	Data analytics and Business intelligence
	Input and costs management
5. Key stake holders	Real-time analytics and dashboards
	Business intelligence and predictions
	Process / Functional efficiency management
	Capability to drill down, drill up, drill across, averaging, summation, and slice & dice with the report tool
	Easy to use GUI Tool with drag and drop features to build reports
	Scheduling a report for execution refresh and or distribution and or publish
	Interface to search and filter the data of the report
	Creating ad-hoc queries and reports for analysis
	Convert reports to MS- Excel, MS- Word & PDF format directly
	Graphical interface for all possible reports to ensure better understanding
6. 360° Feedback System	
	1. Patient Feedback • Patients should be able to provide feedback on: o Doctors (consultation quality, communication, diagnosis) o Smart Virtual Clinic (SVC) services (facility, wait time, overall experience)

	2. Operator Feedback
	• Operators should be able to provide feedback on:
	  o Patients (cooperation, adherence to process)
	  o Doctors (availability, responsiveness, coordination)
	
	3. Doctor Feedback
	• Doctors should be able to provide feedback on:
	  o Patients (case clarity, compliance, behavior)
	  o Operators (support quality, data accuracy, coordination)

7.Support Tickets	
	All Users on SVC application can raise tickets for bringing up any issues they are facing with the application or any other project related issues. These tickets will be accessed by the technical support/application support personnel and they would further analyse the issue and take necessary clarifications from the users who have raised the tickets and also do the root cause analysis of such issues and route it if necessary to concerned persons for resolution or if they can solve the issue themselves. They will communicate the necessary resolution to the user who has raised the ticket and upon satisfactory acceptance of the resolution by the user, the support personnel would close the issue in the application and the system will notify the concerned user about the status of ticket every time the status of the ticket is changed.

9.1.4.3 Technology Architecture

Entire technology platform is designed and developed on Micro services-based application architecture in the Spring Boot Framework. The technology system in the backend would have a collection of small, autonomous, and self-contained services which are built to serve a single business functionality/capability.

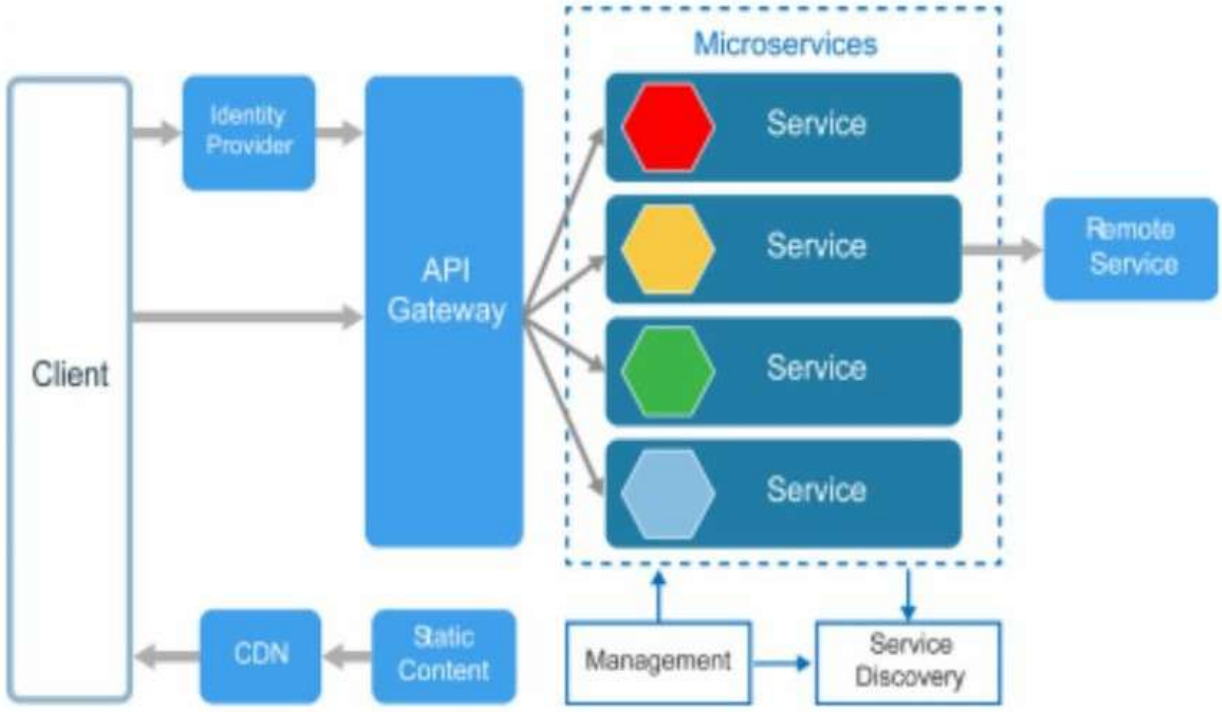
Along with the best practices of application designs following principles are considered for adoptions as part of the failure isolations

- Circuit-breaker design pattern
- Asynchronous communication
- Loose coupling
- Event-driven architecture
- Stateless design
- Self-contained services

- Timeouts

However, Technology platform to be designed and developed using any appropriate framework / architecture apart from above mentioned application design principles.

Following is the schematic reference proposed for designing the platform



9.1.5 Mobile Applications for Patients:

The features considered for the development of Mobile Application for the patients are:

a. Application available on both android and IOS platforms
b. Patient Registration and Profiling
c. OTP based user authentication
d. Appointment scheduling for various specialties (with edit and cancelation provisions).
e. Access / Upload Medical records securely.
f. Securely share digital medical records to the concerned healthcare providers whenever necessary.
g. View prescriptions of the doctors and update adherence to the actions prescribed on a real time basis.
h. Update current health condition during the course of treatment and also post treatment.

9.1.6 O&M of SVC, Central Clinical Command Centre and Technology Platform

The scope involved the operations and maintenance of all functions in Smart virtual clinics and central clinical command centers

a. Maintenance of Digital clinical equipment provided at 22 virtual clinics locations which includes the OEM prescribed annual maintenance, preventive and predictive maintenance of equipment.
b. The calibration of equipment. The procedures of calibration shall be in line with national or international standards.
c. Maintenance of Digital Clinic Software Application platform. This also covers bug fixing with respect to the functional, design and coding areas. Upgrades of the system to address new functional requirements are not the part of the scope of O&M.
d. Maintenance of Civil infrastructure in Virtual Clinics and Central clinical command center which are playing a role in the functioning and quality of service of virtual at Virtual Clinic and Central Clinical Command Centre are also the part of the O&M scope.

9.1.7 Summary of Software Features:

- Capable of working on standard browsers like Firefox, Chrome etc or Windows / Android / ios based Apps.
- Allow for real-time and seamless video consultation, collaboration, chat etc.
- Capable of connecting to the Medical Devices and capture the vitals using wired/Wi-Fi Bluetooth or any advanced communication technology.
- Support for real-time and seamless video consultation, collaboration, chat etc.
- Support for create/edit and viewing patient's record.
- Support for real-time monitoring, analysis, viewing and seamless streaming of 3/5/12 Lead ECG.
- Support to work in Offline Mode and pushing of the data upon internet connectivity (Store and Forward).
- Should allow for the conversion of Non-DICOM images to DICOM
- Should support for communication with the Server through Ethernet or Wi-Fi / Bluetooth over broadband / leased lines or private network.
- Data should be highly secured with sufficient authentications, should not be allowed to access unauthorized users.
- Should be complaint to the Healthcare industry standards such as HL7, ICD 10, and DICOM 3.0 etc.
- Support all clinical and administrative data communication using HL 7 standards.
- Shall allow for remote control, monitor, maintenance and up-gradation of the software from a remote location.
- Instant Messaging with an End to End encryption.
- Support Multi Stream Video channel for multiple Doctor's consultation.
- Capable of collaborating with various Medical Devices such as ECG, Blood Pressure, SPO2, Spirometer, Otoscope, Dermascope etc.
- Capable of generating various Analytical and MIS Reports.
- The audio/video sessions established are to be secured with an End-to-End encryption.
- Should support for Clinical Decision Support System (CDSS) using customized algorithms which enable in faster/quicker decisions.

9.8 Application Platform

9.8.1 Loosely Coupled Architecture

SVC application is developed with loosely coupled architecture. Functionality are broken down into independent modules with no inter-module dependencies. Each module shall work independently. Application follows clear interface for communication. Have less/no dependencies between each modules and external application, Instead Web APIs are used for communication. Can change their underlining technology without affecting the rest of the application. Application can be deployed independently without affecting the ecosystem

9.8.2 Scalability

SVC Application is built on Service Oriented Architecture (SOA). System can be scalable both in terms of Volume and Functionally. Provides clustering, caching, failover, load balancing, and distributed deployment features expected in a best-of-breed platform. The database is a significant point to focus on after you have addressed the infrastructure and architecture aspects. The type of database you choose will depend on the data types you need to store.

9.8.3 Horizontal Scaling Vs Vertical Scaling

Horizontal scaling (also described as "scaling out") and Vertical Scaling (also described as "scaling up)" are pretty similar because they both involve adding computing resources to your infrastructure. But there are distinct differences between the two in terms of implementation and performance.

Horizontal Scaling (Scaling out): Horizontal scaling refers to adding additional nodes or machines to your infrastructure to handle new demands. Suppose you are hosting a web application on a server and realize that it no longer has the capacity (or capabilities) to handle traffic or load. Then, adding a server may be your solution.

Vertical Scaling (Scaling up): While horizontal scaling refers to adding additional nodes/machines, vertical scaling refers to adding more power to your current machines that it meets demand. Suppose now your server requires more processing power. Then, adding processing power and memory to the physical machine running the server may be your solution.

9.9 Availability

Availability describes how well a system provides useful resources over a set period of time. High availability guarantees an absolute degree of functional continuity within a time window expressed as the relationship between uptime and downtime. The system should be available at all times, meaning the user can access it using a web browser, only restricted by the down time of the server on which the system runs. In case of a hardware failure or database corruption, a replacement page will be shown. Also, in case of any failure, processes as detailed in the business continuity policy should be followed. High availability depends on the expected uptime defined for system requirements;

9.10 Maintainability

It is well known that the majority of the cost of software is not in its initial development, but in its ongoing

maintenance—fixing bugs, keeping its systems operational, investigating failures, adapting it to new platforms, modifying it for new use cases, repaying technical debt, and adding new features. SVC application followed loosely coupled architecture where functionalities are divided in to modules and communication between each module are achieved through web API and there is no/Less dependencies between the modules. This architecture helps to for easy deployment, configuration, and maintenance.

9.11 Portability

The application is web-based application and runs on windows platform. The end-user part is fully portable and any system using any web browser should be able to use the features of the application without being required to recreate or to modify the application significantly to run it normally.

I. Patient Management Module:

- Facility to create patient's profile and record (off-line and on-line), and allow to manage and edit the records.
- Facility to search for the patient's based on various parameters.
- Should be able retrieve the Doctor's notes and prescriptions and allow it for printing.

II. Doctor's Module:

- Allow for the Doctor to view the patient's record and details of all past consults information.
- Should allow for Video Conferencing and Digital Auscultation.
- Allows Doctor's to monitor all the patients in his/her queue and should be able select the patients on priority as well as First Come First Serve (FCFS) basis.
- Should allow the doctor at remote to enter the patient's EMR with the details such as patient's history, complaint, symptoms, observations, vital signs, allergies, prescriptions etc.

III. Video Consultation Module:

- Should support for audio and video consultation End to End encryption.
- Support for real-time and seamless video consultation.
- Support instant Messaging with an End to End encryption.
- Capable of uploading and downloading the images/audio/videos in standard formats.
- Should allow the capability of zooming the images/video on the areas / region of interest for better clarification.

IV. **Electronic Medical Record Module:**

- The Patient's as well as Doctors can access the medical record and prescriptions as and when required.
- Should allow uploading and downloading the medical images in jpg/jpeg, bmp, tiff, png, DICOM or any standard image formats.
- Capable of receiving the DICOM images from the Medical Devices connected.
- Should facilitate for the patients/doctor's to mark the symptoms like wound, rashes etc., on the human body.

- Should be able retrieve the Doctor's notes and prescriptions and allow it for printing.

V. Tele Radiology Module:

- Should allow sharing of the x-ray's images, scanned images, laboratory reports, or any images/pictures related to the complaint / symptoms prior to the Video Consultation with the Specialist for easy and early detection, and analysis of the situation.
- Image/videos should be completely encrypted, secured and archived.

VI. Book Video Appointments:

- Capable of providing the list of connected hospitals, and specialists in each hospital along with the details such as Name of Doctors/Specialists, Qualification, Specialization, experience etc.
- Should allow for the end users to view the free slots available for the specialists and book the slot.
- Should send the instant alerts and notifications to all the concerned.
- Capable of viewing the appointment history and allow the end users to cancel/ re-schedule the appointment.

VII. Reports Module:

- The System Administrator/Management Representative should be able to get the statistics / reports of the Tele Medicine Consultations for a given hospital, specialists, time period, disease, symptoms etc.
- Allow to generate various MIS and Analytical Reports as and when required.

Note:

All Medical Devices should be BLE (Bluetooth Low Energy) compliant. These devices should be further integrated with the Tele Medicine software so that data from these devices are captured and stored in respective fields of the software without any manual interference.

SVC – Specialist and Medical Equipment's

Specialisation
Ophthalmology
Cardiology
Dermatology
Endocrinology
General Medicine
Psychiatry
ENT (Ear, Nose, and Throat)
Pediatrics

Equipments in SVCs	
Stethoscope - Digital	Fundus Camera (Ophthalmic)
Sphygmomanometer	Ophthalmic Refraction Unit
Glucometer	Schirmer Tear Test Strip
ECG	Snellen's Chart
Derma Scope	Jaeger Chart
Examining Camera - ENT	Ishihara Card
Magnifiying Lens	Examining Chair
Ophthalmoscope	A3 Digital X-Ray Scanner

Fig(6) Integrated Medical equipments used

Fig(7) SVC in Palace Guttahalli UPHC

9.11.1 Housekeeping of Smart Virtual Clinics & Central Clinical Command Centre

a. This involves daily and monthly housekeeping of premises of Virtual Clinics and Central clinical command center.

b. The scope involves a documented procedure (SOP) for housekeeping with a documented evidence of adherence to the procedure. The SOP is designed to meet the clinical hygiene requirements as per the national / international standards.

9.11.2 Data storage and Data Recovery

a. MSI shall be responsible for the management of the storage solution in the selected cloud space It should be noted that the activities performed by the MSI may be reviewed by **BCCC**.

b. MSI shall be responsible for storage management, including but not limited to management of space in the cloud, zone, security, business continuity volumes, performance, etc.

c. The storage administrator will be required to identify parameters including but not limited to key resources in the storage solution, interconnects between key resources in the storage solution, health of key resources, connectivity and access rights to storage volumes and the zones being enforced in the storage solution.

d. MSI shall be responsible for implementation of backup & archival policies as finalized with **BCCC**. The MSI is responsible for getting acquainted with the storage policies of **BCCC** before installation and configuration. It should be noted that the activities performed by the MSI may be reviewed by **BCCC**.

e. MSI shall be responsible for monitoring and enhancing the performance of scheduled backups, scheduled regular testing of backups and ensuring adherence to related retention policies.

10 Project – Roles and Responsibilities

10.8 Roles & Responsibilities of BCCC

BCCC is the stakeholder managing the entire operations of Smart Virtual Clinics in the Bengaluru Central city. The broad roles and responsibilities are as follow;

a. Provide the MSI with necessary information on SVC operations and process
b. Facilitate the MSI to do necessary surveys.
c. Provide a single point of contact from the department for the MSI to contact.
d. Provide necessary inputs during the implementation phase to get desired output. Review the Implementation Plan submitted by MSI and provides comments, if any and accord approval upon finalization.
e. Nominate officers to undergo training with the MSI
f. Devise monitoring mechanisms to ensure smooth functioning of the entire SVC machinery.
g. Review all documents, reports, etc submitted by MSI and provide inputs and accord approvals, wherever required.
h. Make necessary amendments to agreements and contracts with vendors/ service providers.

10.9 Roles and Responsibilities of MSI

The overall scope of the MSI includes supply, installation, integration, commissioning, operations, maintenance (O & M) and training of the Project for a fixed period of time. The scope also includes setting up of the project facilities at the location provided by **BCCC** and creating necessary infrastructure for the functioning of the CCCC. The key responsibilities of the MSI are as follows;

a. Obtain necessary clearances and approvals for the Project and its various components
b. Prepare and submit detailed Implementation Plan and commence work only upon approval of the same
c. Adhere to timelines in accordance with the Agreements executed
d. Comply with all statutory and regulatory requirements pertaining to the Project and Project Facilities.
e. Coordinate with the stakeholder for necessary integration to the CCCC as per agreed implementation Plan and Scope of Work
f. MSI to bear integration cost with other applications
g. Carry out necessary tests, inspections etc. in accordance with the Agreements.

h. Ensure security of data, network at all times
i. Comply with all SLAs stipulated

10.10 Project Management Office (PMO)

A Project Management office will be set up during the start of the project. The PMO will, at the minimum, include a designated full-time team from MSI. It will also include key persons from the stakeholder including members of **BCCC** and other officials/representatives by invitation. The operational aspects of the PMO need to be handled by MSI including maintaining weekly statuses, minutes of the meetings, weekly/monthly/project plans, etc.

PMO will meet formally on a weekly basis covering, at a minimum, the following agenda items:

a. Project Progress
b. Delays, if any – Reasons thereof and ways to make-up lost time
c. Issues and concerns
d. Performance and SLA compliance reports
e. Unresolved and escalated issues
f. Project risks and their proposed mitigation plan
g. Discussion on submitted deliverable
h. Timelines and anticipated delay in deliverable if any
i. Any other issues that either party wishes to add to the agenda

During the development and implementation phase, there may be a need for more frequent meetings and the agenda would also include:

a. Module development status
b. Testing results
c. IT infrastructure procurement and deployment status
d. Status of setting up/procuring of Helpdesk, DC hosting
e. Any other issues that either party wishes to add to the agenda

MSI shall recommend PMO structure for the project implementation phase and operations and maintenance phase.

10.10.1 Helpdesk and Facilities Management Services

a. MSI shall be required to establish the helpdesk and provide facilities management services to support the **BCCC** and stakeholder officials in performing their day- to-day functions related to this system.

b. MSI shall setup a central helpdesk dedicated (i.e. on premise) for the Project. This helpdesk would be operational upon implementation of the project. Providing helpdesk/support services from a shared facility of any other party/provider is not permitted.

c. Functional requirements of the helpdesk management system fully integrated with the enterprise monitoring and network management system. The system will be accessed by the stakeholder department officials for raising their incidents and logging calls for support. The detailed service levels and response time, which MSI is required to maintain for provisioning of the FMS services are described in the Service Level Agreement.

10.10.2 Steering Committee

a. The Steering Committee will consist of senior stakeholders from **BCCC**, its nominated agencies and MSI. MSI will nominate its **BCCC** vertical head to be a part of the Project Steering Committee.

b. MSI shall participate in Monthly Steering Committee meetings and update the Steering Committee on Project progress, Risk parameters (if any), Resource deployment and plan, immediate tasks, and any obstacles in project. The Steering committee meeting will be a forum for seeking and getting approval for project decisions on major changes etc.

c. All relevant records of proceedings of Steering Committee should be maintained, updated, tracked and shared with the Steering Committee and Project Management Office by MSI.

d. During the development and implementation phase of the project, it is expected that there will be at least fortnightly Steering Committee meetings. During the O&M phase, the meetings will be held at least once a quarter.

e. Other than the planned meetings, in exceptional cases, **BCCC** may call for a Steering Committee meeting with prior notice to MSI.

f. Project Monitoring and Reporting

i. MSI shall circulate written progress reports at agreed intervals to **BCCC** and stakeholder. Project status report shall include Progress against the Project Management Plan, status of all risks and issues, exceptions and issues along with recommended resolution etc.

ii. Other than the planned meetings, in exceptional cases, project status meeting may be called with prior notice to the MSI. **BCCC** reserves the right to ask the MSI for the project review reports other than the standard weekly review reports.

10.10.3 Risk and Issue Management

a. MSI shall develop a Risk Management Plan and shall identify, analyze and evaluate the project risks, and shall develop cost effective strategies and action plans to mitigate those risks.

b. Shall carry out a Risk Assessment and document the Risk profile of **BCCC** based on the risk appetite and shall prepare and share the **BCCC** Enterprise Register. MSI shall develop an issues management procedure to identify, track, and resolve all issues confronting the project. The risk management plan and issue management procedure shall be done in consultation with **BCCC**.

MSI shall monitor, report, and update the project risk profile. The risks should be discussed with **BCCC** and a mitigation plan be identified during the project review/status meetings. The Risk and Issue management should form an agenda for the Project Steering Committee meetings as and when required.

10.11 Governance Procedure

MSI shall document the agreed structures in a procedure's manual.

10.11.1 Planning and Scheduling

MSI will prepare a detailed schedule and plan for the entire project covering all tasks and sub tasks required for successful execution of the project. MSI has to get the plan approved from **BCCC** at the start of the project and it should be updated every week to ensure tracking of the progress of the project.

The project plan should include the following:

a. The project breaks up into logical phases and sub-phases;

b. Activities making up the sub-phases and phases;

c. Components in each phase with milestones;

d. The milestones are suggested in this DPR. MSI cannot change any of the milestone completion dates. MSI can only propose the internal task deadlines while keeping the overall end dates the same. MSI may suggest improvement in project dates without changing the end dates of each activity.

e. Key milestones and deliverables along with their dates including those related to delivery and installation of hardware and software;

f. Start date and end date for each activity;

g. The dependencies among activities;

h. Resources to be assigned to each activity;

i. Dependency on **BCCC**

10.11.2 License Management

MSI shall track software usage throughout the IT setup so as to effectively manage the risk of unauthorized usage or under-licensing of software installed at the SVC, and Integrated Control Center. This may be carried out through the use of standard license metering tools.

10.12 Manpower Deployment

MSI shall deploy below Manpower during implementation and O&M phases. The deployed resource shall report to **BCCC** and work closely with Program Management Office of the project. Following are the minimum resources required to be deployed in the Project, however MSI may deploy additional resources based on the need of the Project to meet the Go-Live milestone and to meet the defined SLAs in this RFP: No extra shall be paid for the same.

Sl No	Type of Resource	Minimum Quantity	Minimum Deployment during O&M	Period of O & M (in Years)
1	Program Head	01	100%	02
2	Project Manager	01	100%	02
3	Operation Manager	01	100%	02
4	Certified Clinical Operators	22	100%	02
3	Technical Support for IT & Software Platform (At CCCC)	02	100%	02
4	Technical Support for IT Infra & Device Integration (At CCCC)	02	100%	02

5	Central Clinical OP (Relivers)	04	100%	02

Apart from the above-mentioned manpower, MSI is required to provide suitable manpower to monitor the data feeds (from Smart Virtual Clinics) at the Central Clinical Command Control Centre and provide APIs to Integrated Command and Control Centre (ICCC) platform and support **BCCC** in operationalization of the project. The exact role of these personnel and their responsibilities would be defined and monitored by **BCCC** and respective departmental personnel.

MSI has to integrate all the existing and upcoming solutions available with the stakeholder on the SVC ICT components through API and other method for seamless integration and the effective decision management perspective.

10.13 Implementation Plan

Milestones and Deliverables

SN	Milestones	Deliverables	Timelines (in months)
1	**Project Implementation Phase**		T + 6 months
1.1	Part 1: Project Implementation Plan		T+1 month
1.1a	Project Inception Report	Detailed site survey report including infrastructure requirement analysis, hardware deployment plan, recommended action plan to address the gaps, budget estimates for addressing the gaps uncovered during the survey, phase wise location distribution etc.	T + 1 month
	Requirement Study	Detailed Project Plan including resource deployment,	
		Communication plan, Risk management plan, Information Security and Business Continuity, Sensitization & Training Plan, Operations management plan etc.	
		Submission of FRS, SRS including Solution Architecture, Application Design Documents (HLD & LLD) of the proposed system.	
		Architecture and design for SVC and CCCC, Network and Cloud Services including, Network Architecture, Security Architecture etc.	
		Integration report for external applications	
	Part 2: Go-Live	Implementation of two pilot smart virtual clinic along with the telephonic consulting module of technology platform implemented in the Central Clinical Command center	

		Report on the progress of every line item to be submitted every fortnight	
1.2	a. Design, supply, installation, commissioning including interior civil work, hardware, system software, network equipment etc. b. Operationalization of Command Control & Communication Centre along with cloud services including bandwidth procurement. C. Procurement, installing and commissioning of required digital clinical devices for pilot launch d. Web-portal Design, development, content writing, training & deployment of technology platforms	• Site Completion/readiness Report • Delivery Acceptance Reports from **BCCC**/Stakeholder • Installation & Commissioning Reports • UAT/FAT and Go Live Certificate from **BCCC**/Stakeholder • Software Licenses details requirement • Training Content & Completion Certificate	T + 3 months
1.3	Part 3: Go-Live a. Design, supply, installation, commissioning including interior civil work, hardware, system software, network equipment etc. b. Operationalization of Command Control & Communication Centre along with Cloud Services including bandwidth procurement.	Implementation of remaining 25 Smart virtual clinics in the designated locations along with implementation of all the modules of Application platform of Central Clinical Command Centre and the patient mobile applications • Site Completion/readiness Report • Installation & Commissioning Reports • UAT/FAT and Go Live Certificate from **BCCC**/Stakeholder • Software Licenses details requirement • Training Content & Completion Certificate	T+5 Months
	c. Web-portal Design, development, content writing, training & deployment of technology platforms		
1.4	Part 4: Go-Live a. Design, supply, installation, commissioning of CRM application with the specified features b. Integration with the CCCC technology platform c. Implementation, testing and training of the help desk / technology support team	Implementation of Technology support and help desk systems • Completion/readiness Report • Installation & Commissioning Reports • Software Licenses details • UAT/FAT and Go Live Certificate from **BCCC**/Stakeholder • Training Content & Completion Certificate	T + 6 Months
	Part 5: Go Live	Implementation of Management information systems and Real Time analytics dashboards	

1.5	a. Design, supply, installation, commissioning including, hardware, system software, network equipment etc. c. Web-portal and Mobile App – Design, development, content writing, training	• Site Completion/readiness Report • Delivery Acceptance Reports from **BCCC**/Stakeholder • Installation & Commissioning Reports • UAT/FAT and Go Live Certificate from **BCCC**/Stakeholder • Software Licenses details requirement • Training Content & Completion Certificate	T + 6 Months
2	Project Operation & Maintenance Phase		T1 + 24 months
2.1	Operation & Maintenance	Monthly & Quarterly SLA Reports Ad-hoc Reports	T1 + 24 Months

The total payment shall be made as per progress of work Payment Schedule

S.No.	Milestones	Timelines	Work Progress
	Capex		
1	Part 1: Requirement study	T + 1 Months	10% of Capex value
2	Part 2 : Go Live	T + 3 Months	20% of Capex value
3	Part 3 : Go Live	T + 5 Months	40% of Capex value
4	Part 4 : Go Live	T + 6 Months	20% of Capex value
5	Part 5 : Go Live	T + 6 Months	10% of Capex value
	Opex		
1	Project Operations & Maintenance phase for a period of 24 months from the date of Final Go Live	T1 + 24 months	Opex will be paid in eight (8) equal quarterly installments spread across 2 years post Final Go-Live

Note 1:

If successful bidder requests for Mobilization advance, following conditions shall be applicable:

a. Mobilization advance can be maximum of 5% of amount (Capex) put to tender excluding O & M cost.

b. Mobilization advance shall be released only after receipt of Bank Guarantee.
c. Mobilization advance shall be recovered from Part 3 of project implementation (T + 5 months)

Note 2:

a. All payments to the Systems Integrator shall be made upon submission of invoices along with necessary approval certificates from **BCCC**.
b. The above payments are subject to meeting of SLA's failing which the appropriate deductions as mentioned in the Service Level Agreement Section in this DPR

10.14 Operations and Maintenance (O&M)

MSI will operate and maintain all the components of the SVC and CCCC System for a period of two (2) years after Go-Live date. During O&M phase, MSI shall ensure that service levels are monitored on a continuous basis; service levels are met and are reported to **BCCC**. After Go-Live, if any system/sub-system/appliance that is deployed during the O&M phase must be added in the System only after proper induction procedures are followed including hardening and security testing. MSI needs to implement a suitable Performance Improvement Process (PIP) in the project. PIP program applies to all the processes of SVC and CCCC project. MSI need to submit its detailed approach for PIP in its technical proposal. Every process and procedure implemented in this project must be reviewed and updated by MSI at least on annual basis from the Go- Live Date. All the manpower engaged for O&M support of the project should be citizens of India. MSI will ensure that at no time shall any data of SVC and CCCC System be ported outside the geographical limits of the country. Some broad details of O&M activities are mentioned at later sections.

10.14.1 Applications Support and Maintenance

Application support includes, but not limited to, production monitoring, troubleshooting and addressing the functionality, availability and performance issues, implementing the system change requests etc. The MSI shall keep the application software in good working order; perform changes and upgrades to applications as requested by the **BCCC** team. All tickets related to any issue/complaint/observation about the system shall be maintained in an ITIL compliant comprehensive ticketing solution. Key activities to be performed by MSI in the application support phase are as follows:

1. Compliance to SLA: MSI shall ensure compliance to SLAs and any upgrades/major changes to the software shall be accordingly planned by MSI ensuring the SLA requirements are met at no additional cost to the **BCCC**.

2. Annual Technology Support: MSI shall be responsible for arranging for annual technology support for the OEM products to **BCCC** provided by respective OEMs during the entire O&M phase.
3. Problem identification and Resolution:
    i. Errors and bugs that persist for a long time, impact a wider range of users and is difficult to resolve becomes a problem. MSI shall identify and resolve all the application problems in the identified solution (e.g. system malfunctions, performance problems and data corruption etc.).
    ii. Monthly report on problem identified and resolved would be submitted to **BCCC** along with the recommended resolution.
4. Change and Version Control

    All planned or emergency changes to any component of the system shall be through the approved Change Management process. The MSI needs to follow all such processes (based on industry ITSM framework). For any change, MSI shall ensure:
    i. Detailed impact analysis
    ii. Change plan with Roll back plans
    iii. Appropriate communication on change required has taken place
    iv. Proper approvals have been received
    v. Schedules have been adjusted to minimize impact on the production environment
    vi. All associated documentations are updated post stabilization of the change
    vi. Version control maintained for software changes

The MSI shall define the Software Change Management and Version control process. For any changes to the solution, MSI has to prepare detailed documentation including proposed changes, impact to the system in terms of functional outcomes/additional features added to the system etc. MSI shall ensure that software and hardware version control is done for entire duration of SI's contract.

5. Maintain configuration information: MSI shall maintain version control and configuration information for application software and any system documentation.
6. Training: MSI shall provide training to **BCCC** personnel whenever there is any change in the functionality. Training plan/Schedule has to be mutually decided with **BCCC**.
7. Maintain System documentation
    i. MSI shall maintain at least the following minimum documents with respect to the SVC CCCCC System:

ii. High level design of whole system
iii. Low Level design for whole system / Module design level
iv. System Requirements Specifications (SRS)
v. Any other explanatory notes about system
vi. Traceability matrix
vii. Compilation environment

8. MSI shall also ensure updating of documentation of software system ensuring that:
   i. Source code is documented
   ii. Functional specifications are documented
   iii. Application documentation is updated to reflect on-going maintenance and
   iv. Enhancements including FRS and SRS, in accordance with the defined standards
   v. User manuals and training manuals are updated to reflect on- going
   vi. Changes/enhancements
   vii. Standard practices are adopted and followed in respect of version control and management.

9. All the project documents need to follow version control mechanism. MSI will be required to keep all project documentation updated and should ensure in case of any change, the project documents are updated and submitted to **BCCC** by the end of next quarter.

10. For application support MSI shall keep dedicated software support team to be based at MSI location that will single point of contact for resolution of all application related issues. This team will receive all the application related tickets/incidents and will resolve them. In its technical proposal MSI need to provide the proposed team structure of application support including number of team members proposed to be deployed along with roles and skills of each such member. Application support team shall be employees of MSI.

11. Any software changes required due to problems/bugs in the developed software/application will not be considered under change control. The MSI will have to modify the software/application free of cost. This may lead to enhancements/customizations and the same needs to be implemented by the MSI at no extra cost.

12. Any additional changes required would follow the Change Control Procedure. **BCCC** may engage an independent agency to validate the estimates submitted by the MSI. The inputs of such an agency would

be taken as the final estimate for efforts required. MSI to propose the cost of such changes in terms of man month rate basis and in terms of Function point/Work Breakdown Structure (WBS) basis in the proposal.

13. ICT infrastructure includes MEITY approved Cloud, and other related ICT infrastructure required for running and operating the envisaged system. MSI shall define, develop, implement and adhere to IT Service Management (ITSM) processes aligned to ITIL framework for all the IT. Services defined and managed as part of this project.

10.14.2 Warranty support

a. MSI shall provide comprehensive and on-site warranty for 2 years from the date of Go-Live for the infrastructure deployed on the project. MSI need to have OEM support for these components and documentation in this regard need to be submitted to **BCCC** on annual basis.

b. MSI shall provide the comprehensive & onsite manufacturer's warranty in respect of proper design, quality and workmanship of all hardware, equipment, accessories etc. MSI must warrant all hardware, equipment, accessories, spare parts, software etc. procured and implemented under this project against any manufacturing defects during the warranty period.

c. MSI shall provide the performance warranty in respect of performance of the installed hardware and software to meet the performance requirements and service levels.

d. MSI is responsible for sizing and procuring the necessary hardware and software licenses as per the given performance requirements. During the warranty period MSI shall replace or augment or procure higher-level new equipment or additional licenses/hardware at no additional cost to the **BCCC** in case the procured hardware or software is not enough or is undersized to meet the service levels and the project requirements.

e. During the warranty period MSI shall maintain the systems and repair/replace at the installed site, at no charge to **BCCC**, all defective components that are brought to the SI's notice.

f. The MSI shall carry out Preventive Maintenance (PM) of all hardware and testing for virus, if any, and should maintain proper records at each site for such PM. The PM should be carried out at least once in six months as per checklist and for components agreed with **BCCC**.

g. The MSI shall carry out Corrective Maintenance for maintenance/troubleshooting of supplied hardware/software and support infrastructure problems including network (active/passive) equipment, security and rectification of the same. The MSI shall also maintain complete documentation of problems, isolation, cause and rectification procedures for building knowledge base for the known problems in centralized repository, accessible to **BCCC** team as well.

h. MSI shall monitor warranties to check adherence to preventive and repair maintenance terms and conditions.

i. The MSI shall ensure that the warranty complies with the agreed technical standards, security requirements, operating procedures, and recovery procedures.

j. MSI shall have to stock and provide adequate onsite and offsite spare parts and spare component to ensure that the uptime commitment as per SLA is met.

k. Any component that is reported to be down on a given date should be either fully repaired or replaced by temporary substitute (of equivalent configuration) within the time frame indicated in the Service Level Agreement (SLA).

l. The MSI shall introduce a comprehensive Assets Management process & appropriate tool to manage the entire lifecycle of every component of SVC CCCC system.

10.14.3 Maintenance of ICT Infrastructure at the SVC & CCCC

- **Management of the SVC and CCCC**

MSI need to deploy requisite resources for management of all SVCs and CCCC System including ICT infrastructure deployed at all SVCs and CCCC. All resources deployed in the project should be employees of MSI and be Indian citizens. Any change in the team once deployed will require approval from **BCCC**. It is expected that resources have proven track record and reliability. Considering the criticality of the project, **BCCC** may ask for security verification (Police verification) of every resource deployed on the project and MSI need to comply the same before deployment of the resource at the project. At all times, the MSI need to maintain the details of resources deployed for the project to **BCCC** and keep the same updated. A detailed process in this regard will be finalized between **BCCC** and MSI. The MSI shall maintain an attendance register for the resources deployed. Attendance details of the resources deployed also need to be shared with **BCCC** on monthly basis. In case a resource is not found suitable, MSI will change the resource on request of **BCCC**. MSI shall comply with this.

The scope of work for infrastructure and maintenance includes the following:

a. Private Cloud DC operations to follow MEITY approved Guidelines

b. ISO 20000 / ISO 27001

c. Ensure compliance to relevant SLA's

d. 24x7 monitoring & management of availability & security of the infrastructure and assets

e. Perform regular hardening, patch management, testing and installation of software updates issued by OEM/vendors from time to time after following agreed process

f. Ensure overall security – ensure installation and management of every security component at every layer including physical security

g. Prepare documentation/policies required for certifications included in the scope of work

h. Preventive maintenance plan for every quarter

i. Performance tuning of system as required

j. Design and maintain Policies and Standard Operating Procedures

k. User access management

l. Other activities as defined/to meet the project objectives

m. Updating of all the Documentation

During operations phase the MSI needs to submit proof of renewal of support for all IT infrastructure products and other system software's for whom it is mandated to have OEM support.
This needs to be submitted on an annual basis and needs to be verified before release of last quarter payment of each year.

- **System Maintenance and Management**

a. MSI shall be responsible for tasks including but not limited to setting up servers, configuring and apportioning storage space, account management, performing periodic backup of data and automating reporting tasks, and executing hardware and software updates when necessary. It shall be noted that the activities performed by the MSI may also be reviewed by **BCCC**.

b. MSI shall provision skilled and experienced manpower resources to administer and manage the entire system at the Command and Control Center.

c. On an ongoing basis, MSI shall be responsible for troubleshooting issues in the IT infrastructure solution to determine the areas where fixes are required and ensuring resolution of the same.

d. MSI shall be responsible for identification, diagnosis and resolution of problem areas pertaining to the IT Infrastructure and maintaining the defined SLA levels.

e. MSI shall implement and maintain standard operating procedures for the maintenance of the IT

infrastructure based on the policies formulated in discussion with **BCCC** and based on the industry best practices/frameworks. MSI shall also create and maintain adequate documentation/checklists for the same.

f. MSI shall be responsible for managing the user names, roles and passwords of all the relevant subsystems, including, but not limited to servers, other devices, etc. MSI shall be required to set up the directory server. Logs relating to access of system by administrators shall also be kept and shall be made available to **BCCC** on need basis.

g. MSI shall implement a password change mechanism in accordance with the security policy formulated in discussion with **BCCC** and based on the industry best practices/frameworks like ISO 27001, ISO 20000 etc.

h. The administrators shall also be required to have experience in latest technologies so as to make provision for the existing and applicable infrastructure on a requirement-based scenario.

- **System Administration**

a. 24*7*365 monitoring and management of the servers in the DC.

b. MSI shall also ensure proper configuration of server parameters and performance tuning on regular basis. MSI shall be the single point of accountability for all hardware maintenance and support the ICT infrastructure. It should be noted that the activities performed by the MSI may be reviewed by **BCCC**.

c. MSI shall be responsible for operating system administration, including but not limited to management of users, processes, preventive maintenance and management of upgrades including updates, upgrades and patches to ensure that the system is properly updated.

d. MSI shall also be responsible for installation and re-installation of the hardware(s) as well as the software(s) in the event of system crash/failures.

e. MSI shall also be responsible for proactive monitoring of the applications hosted

f. MSI shall appoint system administrators to regularly monitor and maintain a log of the monitoring of servers to ensure their availability to **BCCC** at all times.

g. **BCCC** shall undertake regular analysis of events and logs generated in all the sub systems including but not limited to servers, operating systems etc. The system administrators shall undertake actions in accordance with the results of the log analysis. The system administrators shall also ensure that the logs are backed up and truncated at regular intervals.MSI shall refer to CERT-In Guidelines so as to ensure their alignment with the practices followed.

h. The system administrators shall adopt a defined process for change and configuration management in the areas including, but not limited to, changes in servers, operating system, applying patches, etc.

i. The system administrators shall provide hardening of servers in line with the defined security policies. Validation of hardening configuration will be carried out quarterly and deviations must be tracked through SLA reporting.
j. The system administrators shall provide integration and user support on all supported servers, data storage systems etc.
k. The system administrators shall be required to trouble shoot problems with web services, application software, server relationship issues and overall aspects of a server environment like managing and monitoring server configuration, performance and activity of all servers.
l. The system administrators should be responsible for documentation regarding configuration of all servers, IT Infrastructure etc.
m. The system administrators shall be responsible for managing the trouble tickets, diagnosis of the problems, reporting, managing escalation, and ensuring rectification of server problems as prescribed in Service Level Agreement.
n. The administrators will also be required to have experience in latest technologies so as to provision the existing and applicable infrastructure on a requirement based scenario.

- **Storage Administration**

a. MSI shall be responsible for the management of the storage solution in the selected cloud space It should be noted that the activities performed by the MSI may be reviewed by **BCCC**.
b. MSI shall be responsible for storage management, including but not limited to management of space in the cloud, zone, security, business continuity volumes, performance, etc.
c. The storage administrator will be required to identify parameters including but not limited to key resources in the storage solution, interconnects between key resources in the storage solution, health of key resources, connectivity and access rights to storage volumes and the zones being enforced in the storage solution.
d. The storage administrator will be required to create/delete, enable/disable zones in the storage solution.
e. The storage administrator will be required to create/delete/modify storage volumes in the storage solution.
f. The storage administrator will be required to create/delete, enable/disable connectivity and access rights to storage volumes in the storage solution.
g. To facilitate scalability of solutions wherever required.
h. The administrators will also be required to have experience in technologies such as virtualization and cloud computing so as to provision the existing and applicable infrastructure on a requirement-based scenario.

- **Database Administration**

a. MSI shall be responsible for monitoring database activity and performance, changing the database logical structure to embody the requirements of new and changed programs.
b. MSI shall be responsible to perform physical administrative functions such as reorganizing the database to improve performance.
c. MSI shall be responsible for tuning of the database, ensuring the integrity of the data and configuring the data dictionary.
d. MSI will follow guidelines issued by **BCCC** in this regard from time to time including access of data base by system administrators and guidelines relating to security of data base.
e. Database administration should follow the principle of segregation of duties to ensure no single DBA can update production tables/data singularly.
f. In addition to restrictions on any direct change in Data by any administrator, the Databases shall have Auditing features enabled to capture all activities of administrators.

- **Backup/Restore/Archival**

a. MSI shall be responsible for implementation of backup & archival policies as finalized with **BCCC**. The MSI is responsible for getting acquainted with the storage policies of **BCCC** before installation and configuration. It should be noted that the activities performed by the MSI may be reviewed by **BCCC**.
b. MSI shall be responsible for monitoring and enhancing the performance of scheduled backups, scheduled regular testing of backups and ensuring adherence to related retention policies.
c. MSI shall be responsible for prompt execution of on-demand backups of volumes and files whenever required by **BCCC** or in case of upgrades and configuration changes to the system.
d. MSI shall be responsible for real-time monitoring, log maintenance and reporting of backup status on a regular basis. MSI shall appoint administrators to ensure prompt problem resolution in case of failures in the backup processes.
e. MSI shall undertake media management tasks, including, but not limited to, tagging, cross-referencing, storing, logging, testing, and vaulting in fire proof cabinets (onsite and offsite as per the detailed process finalized by during project implementation phase).

- **The following details will be audited periodically:**

a. Backup or data preservation

b. Data capacity
c. Network and Data security
d. Capacity planning and quality requirements

- **Audit log**

a. ISO 27789:2013 Health informatics -Audit Trails for Electronic Health Records
b. All actions related to electronic health information must be recorded with the date, time, record identification, and user identification whenever created, modified (non-clinical data only), deleted (stale and non-clinical data only), or printed;
c. An indication of which action(s) took place must also be recorded

- **Network monitoring**

a. MSI shall provide services for management of network environment to maintain performance at optimum levels on a 24 x 7 basis. It should be noted that the activities performed by the MSI may be reviewed by **BCCC**.
b. MSI shall be responsible for creating and modifying VLAN, assignment of ports to appropriate applications and segmentation of traffic.
c. MSI shall also be responsible for break fix maintenance of the LAN cabling within SVC CCCC etc.
d. MSI shall also provide network related support and will coordinate with connectivity service providers of **BCCC**/other agencies who are terminating their network at the SVC CCCC for access of system.

- **Security Management**

a. Regular hardening and patch management of components of the SVC CCCC System as agreed with **BCCC**
b. Performing security services on the components that are part of the **BCCC** environment as per security policy finalized with **BCCC**
c. IT Security Administration – Manage and monitor safety of information/data
d. Reporting security incidents and resolution of the same
e. Proactively monitor, manage, maintain & administer all security devices and update engine, signatures, and patterns as applicable.
f. Managing and monitoring of anti-virus, anti-malware, phishing and malware for managed resources.
g. Ensuring 100 percent antivirus coverage with patterns not old more than period agreed on any given system

h. Reporting security incidents and co-ordinate resolution
i. Monitoring centralized pattern distribution (live update) and scan for deficiencies
j. Maintaining secure domain policies
k. Secured IP sec/SSL/TLS based virtual private network (VPN) management
l. Performing firewall management and review of policies on at- least quarterly basis during first year of O&M and then after at- least on half-yearly basis
m. Resolution of calls for security notifications, system alerts, vulnerabilities in hardware/software and alerting **BCCC** as appropriate
n. Performing patch management using software distribution tool for all security applications including content management system, antivirus and VPN
o. Providing root cause analysis for all defined problems including hacking attempts
p. Monthly reporting on security breaches and attempts plus the action taken to thwart the same and providing the same to **BCCC**
q. Maintaining documentation of security component details including architecture diagram, policies and configurations
r. Performing periodic review of security configurations for inconsistencies and redundancies against security policy
s. Performing periodic review of security policy and suggest improvements
t. Reviewing logs daily of significance such as abnormal traffic, unauthorized penetration attempts, any sign of potential vulnerability. Security alerts and responses. Proactive measures in the event a problem is detected
u. Policy management (firewall users, rules, hosts, access controls, daily adaptations)
v. Modifying security policy, routing table and protocols
w. Sensitizing users to security issues through regular updates or alerts – periodic updates/Help **BCCC** issuance of mailers in this regard
x. Performing capacity management of security resources to meet business needs
y. Rapidly resolving every incident/problem within mutually agreed timelines
z. Testing and implementation of patches and upgrades
aa. Network/device hardening procedure as per security guidelines from **BCCC**
bb. Implementing and maintaining security rules
cc. Performing any other day-to-day administration and support activities

- **Other Activities**

a. MSI shall ensure that it prepares configuration manuals for OS, appliances, middleware, all tool, servers/devices and all equipment's and the same need to be submitted to **BCCC**, any changes in the configuration manual need to be approved by **BCCC**. Configuration manual to be updated periodically.

b. MSI shall maintain data regarding entitlement for software upgrades, enhancements, refreshes, replacements and maintenance.

c. If the Operating System or additional copies of Operating System are required to be installed/reinstalled/un-installed, the same should be done as part of O&M.

d. MSI should carry out any requisite adjustments/changes in the configuration for implementing different versions of Application Software.

e. Updates/Upgrades/New releases/new versions: The MSI shall provide from time to time the Updates/Upgrades/new releases/new versions of the software and operating systems as required. The MSI should provide free upgrades, updates & patches of the software and tools to **BCCC** as and when released by OEM.

f. MSI shall provide patches to the software as part of IT infrastructure, operating system, databases and other applications.

g. Software License Management: The MSI shall provide for software license management and control. MSI shall maintain data regarding entitlement for software updates, enhancements, refreshes, replacements, and maintenance.

h. Data backup/recovery management services

i. All other activities required to meet the project requirements and service levels.

j. It is responsibility of the MSI to scale up the Operations & Maintenance (O&M) team as and when required to ensure smooth project execution throughout the project duration.

10.15 Handholding and Training

In order to strengthen the staff, structured capacity building programs shall be undertaken for identified resources of **BCCC** and stakeholder departments. Although most of the operations during the O&M period would be handled by the resources of MSI, it is important for the stakeholder departments (Including Ward Wise Auto Tipper/Compactors Drivers and Helpers) to undergo periodic training as subsequently they would be taking over and operating the SVC and CCCC.

The following pre-implementation training needs have been identified for all the stakeholders:

1. Functional Training
    a. Basic IT Skills
    b. Web Portal, Mobile App, Digital clinical Device Monitoring
    c. Software Applications (CCCC)
    d. Networking, Hardware Installation
    e. Helpdesk
    f. Feed monitoring
2. Administrative Training
    a. System Administration Helpdesk, BMS Administration etc.
    b. Master trainer assistance and handling helpdesk requests etc.
3. Senior Management Training
    a. Usage of all the proposed systems for monitoring, tracking and reporting.
    b. MIS reports, accessing various exception reports.

The below Post Implementation Training has been identified.

4. Post-Implementation Training
    a. Refresher Trainings for senior officials
    b. Functional/Operational training and IT basics for new operators
    c. Refresher courses on System Administration
    d. Change Management programs

The training shall be on the 'train the trainer' basis for all the wards.

10.16 Project risk analysis and mitigation plan

Project risk can be viewed under four categories of Risk Allocation Matrix:

1. **Category 1** is risks that are internal to the project. These are risks that are identified and managed by the project team during day-to-day project activities.
2. **Category 2** is external risks affecting the project. An example would be a piece of equipment from a third party supplier that must be available at a specific time as a large number of project tasks are dependent upon the timely arrival and successful commissioning of the piece of equipment.
3. **Category 3** is external project dependencies within the organization that can have an influence on the project such as resources that are shared across various projects within the organization.

4. **Category 4** risks are enterprise-level events or initiatives that can impact the project's outcome such as a merger or acquisition.

Based on the above mentioned risk level categorization, the probable risks identified in the project are as follows:

Table: Risk Allocation Matrix

SN	Risk Description	Risk Category	Mitigation Plan
1	Overshooting the specified time frame	1	▪ Deployment of a very specialized team from a Consultant/SI, well supported by experience team of subject matter experts. ▪ Involvement of the top leadership of Consultant/ MSI for necessary focus and inputs ▪ Regular review meeting (fortnightly initially) with senior management team
2	Continuity of project staff	3	▪ While the team may have some amount of redundancy built in, ensuring that a larger team not only brings in diverse experience but acts as buffer for change in staff (due to attrition, sickness etc.)
3	Changes in top management	4	▪ To identify multiple senior stakeholders initially into the assignment. ▪ All important decisions to be documented, discussed and vetted by a larger team of top management executives
4	Delay in approving project deliverable	3	▪ Project Team to submit – formal one page fortnightly progress report, clearly highlighting documents requiring **BCCC** approval/inputs ▪ Documents not responded to within 10 days to be escalated to **BCCC**'s higher management
5	Resistance to change	4	▪ for managing the implementation **BCCC** initiatives so that stakeholders are taken into confidence from the inception of the project
6	Lack of reliable data	1	▪ In case, process design is based upon data, which is not reliable or which could not be validated, signoff should be taken from **BCCC** through submissions made within the framework on fortnightly progress review
7	Non-cooperation by Stakeholder in providing necessary data for integration	1	▪ Obtaining of consent letters, sign off from relevant departments as well as execution of MoU with critical departments during project preparation stage

11 Service Levels

11.8 Purpose

The purpose is to define the levels of Service provided by MSI to the Authority for the duration of the Contract. The benefits of this are:

a. Start a process that applies to Authority and MSI attention to some aspect of performance, only when that aspect drops below the threshold defined by the Authority.
b. Help the Authority control the levels and performance of MSI's services
c. The Service Levels are between the Authority and MSI.

11.9 Service Level Agreements & Targets

a. Section C is agreed to by Authority and MSI as the key performance indicators for the project. This may be reviewed and revised according to the procedures detailed in Clause 60 SLA Change Control.
b. The following Articles describe the measurements to be used to track and report system's performance on a regular basis. The targets shown are for the period of Contract.
c. The procedures in Clause 60 shall be used if there is a dispute between the Authority and MSI on what the permanent targets should be.

11.10 General Principles of Service Level Agreements

Service Level Agreement (SLA) shall become the part of Contract between **BCCC** and the MSI. SLA defines the terms of the MSI's responsibility in ensuring the timely delivery of the deliverables and the correctness of the same based on the agreed Performance Indicators as detailed in this Article.

a. The MSI has to comply with Service Level requirements to ensure adherence to Project timelines, quality and availability of Services, throughout the period of this Contract. The MSI has to supply appropriate software/hardware/automated tools as may be required to monitor and submit reports of all the SLAs mentioned in RFP Volume Ill & Section C of the this document.

b. For purposes of the SLA, the definitions and terms as specified in the document along with the following terms shall have the meanings set forth below:

1. "**Total Time**" - Total number of hours in the quarter (or the concerned period) being considered for evaluation of SLA performance.

2. **"Uptime"** – Time period for which the specified services/outcomes are available in the period being considered for evaluation of SLA. Formulae for calculation of Uptime: Uptime (%) = {1-[(Downtime)/(Total time- scheduled maintenance time)]}*100

3. **"Downtime"** - Time period for which the specified services/components/outcomes are not available in the concerned period, being considered for evaluation of SLA, which would exclude downtime owing to Force Majeure & Reasons beyond control of the successful bidder.

4. **"Scheduled Maintenance Time"** - Time period for which the specified services/components with specified technical and service standards are not available due to scheduled maintenance activity. The successful bidder is required to take at least 10 days prior approval from **BCCC** for any such activity. The scheduled maintenance should be carried out during non-peak hours (like post mid-night, and should not be for more than 4 hours. Such planned downtime would be granted max 4 times a year.

5. **"Incident"** - Any event/abnormalities in the service being rendered, that may lead to disruption in normal operations and services to the end user.

6. **"Response Time"** - Time elapsed from the moment an incident is reported in the Helpdesk over phone or by any applicable mode of communication, to the time when a resource is assigned for the resolution of the same.

7. **"Resolution Time"** - Time elapsed from the moment incident is reported to Helpdesk either in person or automatically through system, to the time by which the incident is resolved completely and services as promised are restored.

11.11 During Implementation SLAs

These SLAs are for completion of individual milestones listed in the Implementation Schedule. For delay of every week in completion & submission of the deliverable, MSI shall be charged with a Penalty as follows:

DELAY (WEEKS)	PENALTY (INR)
1 WEEK OF DELAY FOR COMPLETION OF SCOPE FOR MILESTONE	**1% OF PAYMENT OF RESPECTIVE MILESTONE**
FOR EVERY SUBSEQUENT WEEK	**1.5% OF CAPEX OF RESPECTIVE MILESTONE VALUE**

IN CASE THE CUMULATIVE PENALTIES REACH 10% OF THE RESPECTIVE MILESTONE VALUE, AT ANY POINT OF TIME DURING IMPLEMENTATION PHASE, **BCCC** RESERVES THE RIGHT TO INVOKE THE TERMINATION CLAUSE.

11.12 Post-Implementation SLAs

A. These SLAS Shall Be Used to Evaluate the Performance of The Services on Monthly Basis.

B. Penalty Levied for Non- Performance as Per Sla Requirements Shall Be Deducted Through Subsequent Payments Due from **BCCC** Or Through the Performance Bank Guarantee.

C. The Sla Parameters Shall Be Measured for Each of The Sub Systems' Sla Parameter Requirements and Measurement Methods, Through Appropriate Sla Measurement Tools. MSI Shall Be Responsible for Providing Appropriate Web Based Online Sla Measurement and Monitoring Tools. All Such Required Tools Shall Be Provided by MSI. **BCCC** Will Have the Authority to Audit These Tools for Accuracy and Reliability.

D. The Upper Limit of Penalty Would Be Capped At 10% Of The O&M Fee Value For Each Quarter. In Case the Calculated Penalty Crosses 10% Penalty of the O&M In 2 Subsequent Quarters, **BCCC** Reserves the Right to Invoke the Termination Clause.

E. The Authority May Appoint an Independent, Third Party Technical Auditor for Monitoring the Service Levels. MSI Shall Be Expected to Take Immediate Corrective Action for Any Breach in Sla. In Case Issues Are Not Rectified to The Complete Satisfaction Of **BCCC**, Within A Reasonable Period of Time Defined In This RFP, Then The **BCCC** Shall Have The Right To Take Appropriate Penalizing Actions, Or Termination Of The Contract.

F. HIGH AVAILABILITY / UP TIME TARGETS FOR ICCC OPERATIONS SHOULD ADHERE TO THE FOLLOWING PARAMETERS

- Availability Target (24Hr operation): 99.5%
- Maximum Downtime Tolerated per Day: 6 minutes.
- Devices are expected to provide 99.95% uptime for application.
- Mean Time between Failures (MTBF) for devices is expected to be greater than 95%.

A. PENALTIES FOR NON-PERFORMANCE SHALL BE AS GIVEN BELOW;

Severity Level	Penalty as a percentage of Contract Value
9	Event of default and termination
8	5.0%
7	2.0%
6	1.0%
5	0.5%
4	0.4%
3	0.3%
2	0.2%
1	0.1%
0	No Penalty

B. THE PAYMENT TO MSI SHALL BE ON QUARTERLY BASIS HOWEVER THE PENALTY SHALL BE CALCULATED ON MONTHLY BASIS AS PER THE SLAS STATED ABOVE:

11.13 Right to Terminate the Contract

The Authority reserves the right to cancel the contract placed on the selected Bidder and recover Expenditure incurred by the Authority under the following circumstances: -

a) The selected Bidder commits a breach of any of the terms and conditions of the bid.

b) The Bidder goes into liquidation, voluntarily or otherwise.

c) An attachment is levied or continues to be levied for a period of seven days upon effects of the bid.

d) If the selected Bidder fails to complete the assignment as per the time lines prescribed in the RFP and the extension if any allowed, it will be a breach of contract. The Authority reserves its right to cancel the order in the event of delay and forfeit the bid security as Liquidated damages for the delay.

e) If deductions on account of penalties & liquidated damages exceeds more than 10% of the Total contract price.

f) In case the selected Bidder fails to deliver the quantity as stipulated in the delivery schedule, the Authority reserves the right to procure the same or similar product from alternate sources at the risk, cost and responsibility of the selected Bidder.

g) After award of the contract, if the selected Bidder does not perform satisfactorily or delays execution of the contract, the Authority reserves the right to get the balance contract executed by another party of its choice by giving one month's notice for the same. In this event, the selected Bidder is bound to make good the additional expenditure, which the Authority may have to incur in executing the balance contract. This clause is applicable, if for any reason, the contract is cancelled.

h) The Authority reserves the right to recover any dues payable by the selected Bidder from any amount outstanding to the credit of the selected Bidder, including the pending bills and/or Invoking the bank guarantee under this contract.

i) The successful bidder shall not assign or sublet the contract or any part or it without written permission from the Authority. In case of noncompliance of this Para, the contract may be cancelled and the damages, if any, may be recovered from the successful bidder.

j) The successful bidder acknowledges that he has fully acquainted himself with all conditions and circumstances under which he has to complete the given work, with all the terms, clauses, conditions, specifications and other details of this contract.

11.14 Consequences of Termination

a) In the event of termination of the Contract due to any cause whatsoever, [whether consequent to the stipulated term of the Contract or otherwise], the Authority shall be entitled to impose any such obligations and conditions and issue any clarifications as may be necessary to ensure an efficient transition and effective business continuity of the Service(s) which the successful bidder shall be obliged to comply with and take

all available steps to minimize loss resulting from that termination/breach, and further allow the next successor successful bidder to take over the obligations of the erstwhile bidder in relation to the execution/continued execution of the scope of the Contract.

b) Nothing herein shall restrict the right of the Authority to invoke the Purchaser Guarantee and other guarantees and pursue such other rights and/or remedies that may be available to Authority under law or otherwise.

c) The termination hereof shall not affect any accrued right or liability of either Party nor affect the operation of the provisions of the Contract that are expressly or by implication intended to come into or continue in force on or after such termination.

12 Bill of Material

	Supply, Installation & Commissioning of Equipment's per SVC	Unit	Qty
1	Supply, installation and commission of 9U Wall mount Rack:	Nos.	1
2	Supply, installation and commission of Handheld microscope / Derma scope:	No	1
3	Supply, installation and commission of Desktop (Reception) should be in top three of market share as per IDC report of India region :Latest Intel Core i5 Processor 2.9 GHz or better	No	1
4	Supply, installation and commission of Examining camera - ENT:	No	1
5	Supply, installation and commission of Glucometer:	No	1
6	Supply, installation and commission of Fundus Camera (Ophthalmic):	No	1
7	Supply, installation and commission of Firewall, VPN, LAN / WAN: Firewall throughput:	No	1
8	Supply, installation and commission of Jaeger chart:	No	1
9	Supply and deliery of Ishihara cards:	No	1
10	Supply, installation and commission of LED Display-55 inch:	No	1
11	Supply, installation and commission of Magnifying lens:	No	1
12	Supply, installation and commission of Leased Line 1:1 for Internet connection - Min 4 MBps	Month	1
13	Supply, installation and commission of Manageable Switch: 24 Gigabit Ports, 16Gbps	No	1
14	Supply, installation and commission of Normal Printer:	No	1
15	Supply and deliery of Schirmer Tear test strip:	No	1
16	Supply, installation and commission of Snellen's chart:	No	1
17	Supply, installation and commission of Software (Cloud Ready):Application – Patient module, Doctors module, Video consultation module, Electronic medical record module, Tele Radiology module, Report & Analytics module etc., of approved brand including cost of transportation, testing, delivery etc complete and as per Engineer-In-Charge of the work	No	1
18	Supply, installation and commission of ECG and Stethoscope -	No	1

19	Supply, installation and commission of Sphygmomanometer:	No	1
20	Supply, installation and commission of VC - Digital Camera:	No	1
21	Supply, installation and commission of VC - Mic and Audio unit:	No	1
22	Supply, installation and commission of Online UPS / Power Backup - 7.5 KVA:	No	1
23	Supply, installation and commission of Other Accessories including cost of cabling, Laying, Outlets, Cable Managers, Patch Panels	L.S.	1
24	Installation charges for split type air conditioner	Each	1
25	KSRB 11 13 Providing and fixing white glazed fire clay laboratory sink	No	1
26	Providing and fixing woode storage unit one side laminate with 18mm PlY or PLPB with edge bound	No	1
27	Providing and fixing meeting table consisting of 25 mm thick PLPB table top edge bounded 25 mm	No	1
28	Providing textured paint of approved quality colour and shade to wall surface after cleaning and	Sqm	34
29	Providing applying two coats of wall putty to inside plastered walls and ceiling using white cement	Sqm	34
30	Supplying & fixing retrofit type PL LED Lamp18 to 20 Watts LED linear source with CCT 6500	No	2
31	Supplying 6A flush type socket and 6 amps flush type SP switch	Each	10
32	Supplying 6A flush type socket and 6 amps flush type SP switch either surface	Each	5
33	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary f	Each	1
34	Supplying and fixing regular MCB distribution boards on wall or wood board or	Each	1
35	Supplying heavy gauge PVC conduit pipe 25mm dia 2mm thick confirming to IS 2509	Mtr	90
36	Wiring for lighting or power circuit using one of FRLS PVC insulated 1100V grade multistrand copper wire	Mtr	70
37	Wiring for lighting or power circuit using one of FRLS PVC insulated 1100V grade multistrand copper wire	Mtr	70
38	Supplying of TR split Air conditioners suitable for operation on A C supply single phase 50 Hz 230	Each	1
39	Supply and installation of revolving chairs of Breathable mesh for backrest and Polyester fabric for seat AN 60 Mesh and 5060 fabric seat Base Nylon base with 50mm Castors for stability a	No	3
40	Supply, installation and commission of Examining table:	No	1

Command Centre

Sl No.	Description	Unit	Qty
1	Supply, installation and commission of 31 Inch Monitor - LED:Size :80.01cm (31.5), Panel Type - IPS, Panel Multi: BOE Module, LED Backlight Technology, Edge Backlight, H2B, Backlight Array, Color Gamut (CIE1931) - sRGB 99% (Typ.), sRGB 98% (Min.), Color Depth (Num of Colors) - 10bit (8bit + FRC), 1.07B, Aspect Ratio -16:9, Resolution: 2560 x 1440, Brightness (Typ.) - 350 cd/m² (Typ.), 280 cd/m² (Min.), Contrast Ratio (Original) - 1000:1 (Typ), 700:1 (Min.), Contrast Ratio (DFC) - Mega , Response Time(GTG) - 5ms (Faster), Viewing Angle (CR≥10)- 178/178, Surface Treatment - Anti-Glare 3H. of approved brand including cost of transportation, testing, delivery etc complete and as per Engineer-In-Charge of the work	No	15
2	Supply, installation and commission of 42U Rack:42U Server rack with 600mm width and 1000mm depth, Basic Frame: Steel folded, Construction: Welded or CKD, Top & Bottom Cover: Bolted to Frame with Cable entry exit cut outs, Front Door: Lockable Perforated steel Door, Rear Door: Lockable Steel Door – Perforated, 19" Mounting Angle: Formed Steel, Std. Equipment Mounting: DIN Std. 10 mm Sq. Slots, Finish: Powder coated, Standard Colour: Grey & Off white OR Black, Mounting: Caster wheels (2 with Brake & 2 without Brake) OR Levelers Or Plinth, Rack Standard: Conforms to DIN 41494 or equivalent standard, Static Load: 750 Kgs with casters 1250 Kgs with Levelers/Plinth, Dual IT Rack mount power distribution unit (1Ph, 230V, 32A, 50/60Hz, Zero U standard with 12 X Indian Round Pin 5/15A, 16A MCB X 2 Circuits- PDU Rating 7.3KVA/Bottom feed-3Mt), FAN Unit of approved brand including cost of transportation, testing, delivery etc complete and as per Engineer-In-Charge of the work	No	1
3	Supply, installation and commission of All-in-One Desktop should be in top three of market share as per IDC report of India region:Latest Intel Core i7 8Core Processor 2.9 GHz or better with 16MB Cache, 16GB DDR4 RAM (Upgradable to 32GB), M.2 256GB PCIe NVMe Class 35 Solid State Drive, 1TB 7200 RPM SATA HDD, Standard Keyboard, Optical Mouse, No Monitor, 2GB Dual Digital Port (Monitors) Graphics Card, OS:Windows 10 Pro, 3 Years Onsite Warranty and Support of approved brand including cost of transportation, testing, delivery etc complete and as per Engineer-In-Charge of the work	Nos	15

4	Supply, installation and commission of Access control system: Biometric Access Control Hardware Architecture, Device with in built Controller, Type of Biometric Device Finger Print Scanning ,RFID Card, Biometric Access Control Software Architecture Web Based (On premise server solution),Types of Biometric Credentials Required Finger + RFID Card, Type of RFID Card Supported EMProx,Maximum Fingerprint Template Storage Capacity (Number) 9600,Maximum Palm, Templates Storage Capacity in Palm Vein Device (Number)0,Screen TypeNon Touch, Number of, USBPorts2, LAN Connectivity, Wi-Fi Connectivity, BIS Registration Under CRS of Meity, Battery Backup Unit Support, Warranty (Years) 3 of approved brand including cost of transportation, testing, delivery etc complete and as per Engineer-In-Charge of the work	No	1
5	Supply, installation and commission of Digital writing pad: a. The writing pad will accommodate both A4 and US letter size paper. OR the devise could be a paperless devise. b. Ability to transmit data to the integrated platform at real time :c. Rechargeable d. Ability to connect to apps on different platforms such as Android, iOS and Windows:e.Paper format can be customized per user/doctor's needs f. Ability to convert incoming data from the writing pad to secure readable format such as PDF of approved brand including cost of transportation, testing, delivery etc complete and as per Engineer-In-Charge of the work	No	15
6	Supply, installation and commission of Headsets with mic for doctors: Cable length2m / 6.6ft Connector socketsUSB Sound Card, Headphones Frequency response 42-17,000 Hz, Impedance 32 Ω, Sound pressure level 95 dB, Microphone Frequency response 90 – 15,000Hz, Pick-up pattern Unidirectional, impedance 2 k, Sensitivity -40dBV of approved brand including cost of transportation, testing, delivery etc complete and as per Engineer-In-Charge of the work	No	15
7	Supply, installation and commission of Leased Line 1:1 for Internet connection - Min 100 MBps using one additional backup line of different ISP with same specification of approved brand including cost of transportation, testing, delivery etc complete and as per Engineer-In-Charge of the work	Month	24

8	Supply, installation and commission of Manageable Switch: 48 Gigabit Ports, 16Gbps of Switching Capacity, 13Mpps of Forwarding capacity, STP, RSTP & MSTP, Support for up to 4096 VLANs simultaneously, Port based and MAC based VLANs, Q-in-Q VLAN, Unidirectional Link Detection (UDLD), Jumbo Frame Support (Up to 9K (9216) bytes), Wire speed routing of IPv4 packets, Up to 512 static routes and up to 128 IP interfaces, 802.1X: RADIUS authentication and accounting, MD5 hash; guest VLAN; unauthenticated VLAN, single/multiple host mode and single/multiple sessions, Supports time-based 802.1X, Dynamic VLAN assignment, STP Bridge Protocol Data Unit (BPDU) Guard, IP Source Guard (IPSG), IP/MAC/Port Binding (IPMB), ACLs- up to 512 rules, CoS: Port based; 802.1p VLAN priority based; IPv4/v6 IP precedence/type of service (ToS)/DSCP based; differentiated services (DiffServ); classification and remarking ACLs, trusted QoS. Web/SSL, Telnet server/SSH, ping, traceroute, Simple Network Time Protocol (SNTP), Trivial File Transfer Protocol (TFTP), SNMP, RADIUS, syslog, DNS client, Telnet Client, DHCP Client, DHCP Autoconfig, IPv6 DHCP Relay, TACACS. SNMP versions 1, 2c, and 3 with support for traps, and SNMP version 3 user-based security model (USM) of approved brand including cost of transportation, testing, delivery etc complete and as per Engineer-In-Charge of the work	No	1
9	Supply, installation and commission of Network file system:CPU: Intel Xeon, Hardware encryption engine :AES-NI, Memory:8GB DDR4 ECC UDIMM (expandable up to 64GB), Compatible drive type: 12 x 3.5" or 2.5" SATA, Maximum internal raw capacity: 168TB (12 x 14TB HDD), External ports: USB 3.0 x 2, Expansion port (Infiniband) x 2, LAN: 1GbE (RJ-45) x 4, PCIe 3.0 x8 slot, Should supports two dual-port 10GbE network interface cards, Wake on LAN/WAN, Wireless support (dongle), AC input power voltage 100V to 240V AC, Power frequency: 50 / 60Hz, single phase, Operating temperature: 5 to 35°C (40 to 95°F), Storage temperature: -20 to 60°C (-5 to 140°F), Relative humidity: 5% to 95% RH, Networking protocols: SMB, AFP, NFS, FTP, WebDAV, CalDAV, iSCSI, Telnet, SSH, SNMP, VPN (PPTP, OpenVPN, L2TP, File system: Internal: Btrfs, ext4, External: Btrfs, ext4, ext3, FAT, NTFS, HFS+, exFAT, Supported RAID type: Basic, JBOD, RAID 0, RAID 1, RAID 5, RAID 6, RAID 10, Virtualization Support: VMware vSphere 6, Microsoft Hyper-V, Citrix, OpenStack Cinder. Directory service: Windows AD integration: Domain Users login via, FTP over SSL/TLS, IP auto-block, firewall, encrypted network backup over Rsync, HTTPS connection of approved brand including cost of transportation, testing, delivery etc complete and as per Engineer-In-Charge of the work	No	1

10	Supply, installation and commission of Online UPS - 20 kw, Max Configurable Power (Watts) 16.0kWatts / 20kVA, Output Voltage Note: Configurable for 400 or 215 V 3 Phase Efficiency at Full Load: 94.0 %:Output Voltage Distortion: Less than 3 %, Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz user adjustable +/- 0.1 Hz Sync to mains, Other Output Voltages: 220, 240, 400, 415:Load Crest Factor: 3 : 1, Topology: Double conversion online, Bypass: Built-in static bypass, Internal bypass (automatic and manual):Input frequency: 40 -70 Hz Auto-sensing, Input voltage range for main operations: 160 - 280V:Other Input Voltages: 220, 240, 400, 415, Input Power Factor at Full load: 0.98:Operating Temperature: 0 - 40 °C, Operating Relative Humidity: 0 - 95 %, Operating Elevation: 0 - 3048meters:Storage Temperature: -15 - 45 °C, Storage Elevation: 0 - 15240meters:Online thermal dissipation: 2216.0BTU/hr, Protection Class: IP20 of approved brand including cost of transportation, testing, delivery etc complete and as per Engineer-In-Charge of the work	No	1
11	Supply, installation and commission of Control Center - Application Backup server:2.5" Chassis with up to 8 Hot Plug Hard Drives, Dual Intel Xeon 2.1 GHz 10 Core 20 Thread 13MB Cache Processors, 64GB (32x2) RDIMM, 3200MT/s Dual Rank RAM, Minimum 3.6 TB Usable disk space with SAS Drives, Supported RAID Configurations- 0/1/5/10, 4x 1Gbps Network Interfaces, Certifications/Compliance (OS)Windows, Red Hat Enterprise Linux, Suse Linux, Ubuntu, Dual, Hot Plug, Redundant Power Supply, Remote Management with Dedicated Network Interface, Pre-Loaded with Windows Server Operating System Standard and Licenses, 36 Months On-site Warranty / Support. Appropriate Rack Mounting Kit for 19” Rack Mounting of approved brand including cost of transportation, testing, delivery etc complete and as per Engineer-In-Charge of the work	No	1
12	KSRB 14 15 1 Providing Italian marble slab flooring 20mm thick with edges of slab machine cut for flooring treads of steps and landings laid on a bed of 25mm thick cement mortar 1 isto 6 mix to line and level jointed with cement slurry curing rubbing polishing complete finishing with flush pointing using white cement including cost of materials HOM labour curing complete as per specifications With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	Sqm	278.68

13	KSRB 14 14 5 Providing Ceramic tiles of approved make shade and size for flooring treads of steps and landings laid on a bed of 12mm thick cement mortar 1isto3 mix flush pointing with white cement using colour pigment including cost of materials labour curing complete as per specifications Specification No KBS for Ceramic Tiles of size 30 x 30cms 6mm thick With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	Sqm	18.58
14	KSRB 11 5 Providing and fixing white vitreous china clay water closet European type Pedestal type Ptrap with black solid plastic seat and lid C P brass hinges rubber buffers 10 litre low level PVC flushing cistern all are approved make with fittings CI or MS brackets 40mm diameter flush bend with fittings and clamps overflow arrangements with special and 25mm mosquito proof coupling of approved design painting of fittings and brackets cutting and making good the wall and floor wherever required including cost of materials labour complete as per specifications Specification No KBS 11 With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	Each	6
15	KSRRB M200 14 1 Dismantling of existing structures like culverts bridges retaining walls and other structure comprising of masonry cement concrete wood work steel work including T and P and scaffolding wherever necessary sorting the dismantled material disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications ii Dismantling Brick or Tile work A In cement mortar MORTH Specification No 202 With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	Cum	40.71
16	KSRB 5 14 Providing and constructing load bearing wall with solid concrete blocks having block density not less than 1800 kg per m3 having a minimum average compressive strength of 4 N per mm2 confirming to IS 2185 Part 1 2005 and constructed with CM 1 isto 4 as per IS 2572 2005 including cost of all materials labour charges scaffolding curing hire charges of machineries etc complete as per specifications KBS No 5 4 with solid concrete blocks of size 400 x 150 x 200mm With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	Sqm	12.26

17	KSRB15 3 Providing 15mm thick cement plaster in single coat with cement mortar to brick masonry including rounding off corners wherever required smooth rendering Providing and removing scaffolding including cost of materials labour curing complete as per specifications cement mortar 1 isto 4 With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	Sqm	13.01
18	KSRB 14 17 2 Providing skirting, dadoing, rises of steps with colour glazed tiles on 10mm thick cement plaster 1 is to 3 and jointed with white cement slurry over existing rough plaster surface using glazed tiles of approved make and size including cost of materials labour complete as per specifications Specification No KBS 14 16 14 17 Colour glazed tiles 30 x 60 cms 6mm thick with border of size 30 x 10 cms With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	Sqm	92.89
19	KSRB 15 15 1 Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth cost of materials labour complete as per specifications with primer With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	Sqm	130.05
20	Providing and fixing Acoustic Veneer paneling over the 50mm x 35mm sal wood frame work at spacing not exceeding 600mm c per c fixed to the wall filled with 50mm thick 32kg density glass wool and top covered out of 4mm thick approved quality Veneer fixed over 19mm thick ply strips of 100mm to 200mm with a gap of 6mm to 10mm in between strips of approved brand termite and water resistant finished with melamine polish complete including cost and conveyance of all materials labour for all items of work HOM complete as per specification With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	Sqm	250.81

21	Providing Fixing of Wooden finished Suspended Ceiling System with WoodWorks edge tiles exposed grid. The Tile in Plain or Perforated with approved laminate Portland Maple Sea Beech Siam Wood Mystique Walnut finish with 0 point 7mm matching PVC edge banding or with perforation of RD6006 RD6 or RG3003 RG3 or RG6011 RG6 either plain or perforation and pattern to be chosen would have Humidity Resistance RH of 70 percentage in module size of 600 x 600 x 18mm and density of 725Kgs per m3 The tile shall be laid on 15 mm wide T section flanges colour white having rotary stitching on all T sections ie the Main Runner 1200 mm and 600 mm Cross Tees with a web height of 38mm and a load carrying capacity of 15.5 Kgs per sqm pull out strength of minimum 100 Kgs The T Sections have a Galvanizing of 90 grams per Sqm and need to be installed with Suspension system of approved make With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	Sqm	69.67
22	Providing Lounge Sofa sets with 3 seat plus 2 seat set of soft luxurious fabric Contemporary Collection Pocket Springs for extra comfort approved design With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	No	12
23	Providing and fixing 100mm wide venetian blinds of window fashion fabric of Taiwan make with 50mm thick powder coated channel with balance imported acrylic self alignable mechanism and equally placed spacers imported tilting mechanism for easy tilting operation with nylon imported thread and beadings 100mm wide imported washable reusable fabric placed with top hanger and bottom with 100mm long bottom plate connected to nylon imported bottom link chain The rate is inclusive of drilling holes for fixing channels to the wall fixing threads and beadings and link chains hard ware fixtures etc complete as per drawing specifications With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	Sqm	16.72

24	Providing and fixing STRAIGHT WORKSTATION consisting of back to back unit made out of 75 mm thick MS CRCA powder coated tile based system for main sprine Separator 25 mm tghick PLPB BSL wooden separator for return spine Top tile finish 8 mm thick MDF covered with Fabric of approved colour and one writing board 600 mm W and one soft board 600 mmw per workstation Bottom tile finish 9 mm thick Laminate tile of approved colour Raceway one middle raceway 600mm W below table top per workstation and continous raceway at the skirting level Wire manager ABS plastic grommet one number per table Table top 25 mm thick PLPB with straight table top Hardware MS powder coated corner bkt cantilever bkt separator hook on bkt L bkt and Table joint plate as per specifications drawings and as directed by Engineer in charge Size 1200 mmW x 600mm D x 1200 mm ht Non Sharing work station with Edge Binding table top Single unit With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	No	40
25	Providing and fixing meeting table consisting of 25 mm thick PLPB table top edge bounded 25 mm thick PLPB with edge bonded End table 18 mm thick PLPB with edge bonded Modesty Hardware Minifix assembly and screw leg as per specifications drawings and as directed by Engineer in charge 2400 mm Dia X1200 mm D X 750 mm Ht 12 seater With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	No	1
26	Providing and fixing discussion table wooden consisting of 25 mm thick PLPB table top edge bounded 25 mm thick PLPB with edge bonded End table Hardware Minifix assembly and screw leg as per specifications drawings and as directed by Engineer in charge 900 mm Dia X 750 mm Ht 4 seater With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	No	2

27	Providing and fixing Vitrified glazed tiles of approved make quality & colour of size 600 x 600 x 10mm thick fixed on existing flooring with special adhesive for flooring skirting and jointed with neat cement slurry mixed with pigment to mach shade of tiles including providing spacers at required interval and removing stains cost of materials mortar labour etc complete as per specification With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	Sqm	300.98
28	Providing carpet tile 80cm x 80cm 8mm thick flooring of approved quality and make fixed on the top of existing flooring fixed with suitable adhesive including cutting to the requied size and fixing etc complete including cost of all materials adhesive labour approved clour etc complete as per specification With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	Sqm	148.63
29	Providing and laying of teak wooden polished flooring of 12mm thick high density timber of approved colour and design with end trims transition profiles beading 15mm thick felt and 20 micron polyester film with 4mm thick foam underlay etc including cost of all mateirals mortar labour curing etc complete as per specification With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	Sqm	65.03
30	Providing and fixing partation or shutter glass door of 12mm thick plain toughened glass of approved make The door is fixed by using any approved make hardware fitting like patch fitting pivot floor machine locking arrangements and suitable SS door rails with floral glass etching for 1 by 3 portion of door area etc complete The rate includes cost of all materials labour hire of tools and machineries as per the specification With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	Sqm	901.07

31	Supplying and fixing PVC or metal conduit Deep junction box 25mm deep junction box With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	Each	60
32	Supplying Erecting Testing commissioning package type Duct able type split Air Conditioner with microprocessor control fitted with twin scroll Compressor with R22 Latest Refrigerant The unit shall be prewired to operate on 415V 50Hz AC Supply The unit shall comprise Evaporated condenser unit Indoor Outdoor Motor Fans suitable over vent fins made up of Aluminium Copper Refrigent coil Etc complete and corded control unit Capacity 17TR With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	No	1
33	Supplying and fixing of modular switch and connected accessories on existing modular switch plate as per IS 3854 and IS 1293 6Amps 3way socket With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	Each	84
34	Supplying and fixing of modular switch and connected accessories on existing modular switch plate as per IS 3854 and IS 1293 32Amps DP switch With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	Each	47

35	Supplying and fixing of modular switch and connected accessories on existing modular switch plate as per IS 3854 and IS 1293 TV or Telephone socket With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	Each	47
36	Supplying and fixing of modular switch and connected accessories on existing modular switch plate as per IS 3854 and IS 1293 RJ45 I O outlet Cat 6 With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	Each	59
37	Supplying and wiring adopting loop system in existing PVC Conduit casing capping using 2 x 1 point 5 Sqmm Phase and Neutral 1x1 point 0 sqmm Earth wire FRLS multi strand PVC insulated copper wire confirming to IS 694 and latest amendments with a 6Amps flush type SP control switch shall be fixed on the existing plastic sheet or gang box the other end of the wires shall be terminated with sufficient loose length in a wood or PVC round block complete for each outlet Short point upto 3Mtr from tapping point to out let via switch With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	Point	74
38	Supplying and wiring adopting loop system in existing PVC Conduit casing capping using 2 x 1 point 5 Sqmm Phase and Neutral 1x1 point 0 sqmm Earth wire FRLS multi strand PVC insulated copper wire confirming to IS 694 and latest amendments with a 6Amps flush type SP control switch shall be fixed on the existing plastic sheet or gang box the other end of the wires shall be terminated with sufficient loose length in a wood or PVC round block complete for each outlet Long point above 6Mtr upto 10Mtr from tapping point to out let via switch With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	Point	74

39	Supplying and fixing surface or flush mounting unbreakable PVC modular box suitable for mounting modular switch plates with due groove cutting in Brick or CC wall including necessary rawl plugs Machine or NF screws etc complete 6 Way With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	Each	74
40	Supplying and fixing superior quality modular switch mounting polycarbonate plate with necessary supporting back plate with required nos of machine screws bolts nuts etc complete on the existing metal or PVC box 6 Module With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	Each	74
41	Supplying fixing and wiring earth leakage relay with core balanced current transformer suitable for single phase 50 Hz AC with latest microcontroller based digital readout of percentage leakage current programmable delay or auto or manual reset facility suitable to mount on DIN rail or flush mounting on panel board With all lead and lift loading and unloading and all other incidental charges etc complete as per specification and direction of the engineer in charge of the work	Each	4

13 Annexures

13.8 Annexure 1 - Guidelines for Qualification Documents

13.8.1 Annexure 1.1 – Check list for submission of the Qualification Documents

Sl No.	List of Documents	File Name / Reference Page No.	Submitted (Y / N)	Descriptio
1.	Proof of EMD Declaration Form Submitted			

2.	Bid Covering Letter As per format provided at Annexure 1.2			Reference No: Date of Letter:
3.	Bidders' Particulars As per format provided at Annexure 1.3			Name of Bidder(s):
4.	Power of Attorney in favor of Authorized signatory As per format provided at Annexure 6			Date of PoA: Name of Authorized Person:
5.	Copy of Certificate of Incorporation / Registration under Companies Act, 1956/2013 or equivalent			Registration Number: Date of Incorporation:

6.	Audited and Certified Balance Sheet, IT returns and Profit/Loss Account for the last 5 (Five) Financial Years. Certificate from the Statutory Auditor on turnover details from the business areas over the last 5 (five) audited financial years. As per format provided at Annexure 7 Certificate from the Statutory Auditor on net worth.			Year-wise details of turnover Average Turnover: Net worth
7.	Valid copy of Certificates (a) ISO 9001:2008 or latest (b) ISO 20000-1:2011 or latest (c) ISO 27001:2013 or latest (d) SEI CMMI Level 3 (e) SEI CMMI Level 5			Issuing By: Issuing Date: Validity Date:
8.	Declaration for not being blacklisted by Central/State Government/ PSU entity in India or similar agencies globally for unsatisfactory past performance, corrupt, fraudulent or any other unethical business practices as on date of submission of the proposal. As per format provided at Annexure 4			Reference No: Date of Letter:
9.	List and address of offices in Bengaluru with GST Registration OR Undertaking from authorized signatory to open the local office with GST registration, within 30 days of signing the contract, if project is awarded.			Proof / Undertaking

13.8.2 Annexure 1.2 – Bid Cover Letter

(To be submitted on the letterhead of the bidder) Date:

To

The Health Officer, BCCC, Public Utility Building, 9th & 10th Floor, near Mayohall, M.G. Road, Bengaluru-560001.

Subject: Bid for "***Smart Virtual Clinics***"

NIT No:

Dear Sir,

With reference to the "Smart Virtual Clinics", we hereby submit our Qualification Documents, Technical Proposal, and Financial Proposal, for the same.

We hereby declare that

a. We hereby acknowledge and unconditionally accept that the Authority can at its absolute discretion apply whatever criteria it deems appropriate, not just limiting to those criteria set out in the RFP and related documents, in short listing of bidder for providing services
b. We have submitted EMD Declaration in the bid documentation
c. We hereby declare that all information and details furnished by us in the Bid are true and correct, and all documents accompanying such application are true copies of their respective originals.
d. We agree to abide by our offer for a period of 180 days from the date of opening of pre-qualification bid prescribed by the Authority and that we shall remain bound by a communication of acceptance within that time.
e. We have carefully read and understood the terms and conditions of the RFP and the conditions of the contract applicable to the RFP. We do hereby undertake to provision as per these terms and conditions.

f. In the event of acceptance of our bid, we do hereby undertake:
   i. To supply the products and commence services as stipulated in the RFP document
   ii. To undertake the project services for entire contract period from the date of signing of the Contract as mentioned in the RFP document.
   iii. We affirm that the prices quoted are inclusive of design, development, delivery, installation, commissioning, training, operations and management, and inclusive of all out of pocket expenses, discounts etc. complete inclusive of all cost.

g. We do hereby undertake, that, until a formal contract is prepared and executed, this bid, together with your written acceptance thereof and notification of award of contract, shall constitute a binding contract between us.

h. We understand that the Authority may cancel the bidding process at any time and that Authority is not bound to accept any bid that it may receive without incurring any liability towards the Bidder.

We fully understand and agree to comply that on verification, if any of the information provided in our bid is found to be misleading the selection process, we are liable to be dismissed from the selection process or termination of the contract during the project, if selected to do so

In case of any clarifications please contact email at _____

Place:
Business Address:

Thanking you,

Yours sincerely, (Signature of the bidder)

Printed Name
Designation

Seal

Date:

13.8.3 Annexure 1.3 - Format to share Bidder's and Bidding Firms Particulars

The table below provides the format in which general information about the Bidder must be furnished.

S No	Information	Details
1	Name of Bidding firm:	
2	Address and contact details of Bidding firm:	
3	Firm Registration Number and Year of Registration	
4	Web Site Address	
5	Status of Company (Public Ltd., Pvt. Ltd., etc.)	
6	EPF Registration No	
7	Company's GST Registration No.	
8	Company's Permanent Account Number (PAN)	
9	Company's Revenue for the last 5 years (Year wise)	
10	Name, Designation and Address of the contact person to whom all references shall be made regarding this RFP	
11	Telephone number of contact person:	
12	Mobile number of contact person:	
13	Fax number of contact person:	
14	E-mail address of contact person:	

Please submit the relevant proofs for all the details mentioned above along with your Bid response

Authorized Signatory
Name
Seal

13.9 Annexure 2. – Guidelines for Technical Proposal

13.9.1 Annexure 2.1 - Check-list for the documents to be included in the Technical Proposal

Sl No.	List of Documents	Name of File/Reference page no.	Submitted (Y / N)	Description	Bid Document Ref. Page No.
1.	Technical Bid Covering Letter			Reference No: Date of Letter:	
2.	Technical Compliance Matrix			-	
3.	Project Implementation Approach			-	
4.	OEM Authorization Form As per format provided at Annexure2.4			OEM Name: Date:	
5.	Audited and Certified Balance Sheet, IT returns and Profit/Loss Account for 2 (Two) Financial Years out of the last 5 Financial Years. Certificate from the Statutory Auditor on turnover details from the indicate business areas out of any 2 (Two) audited financial years 2016-17, 2017-18, 2018-19, 2019-20 and 2020-21, as per format provided at Annexure7 Certificate from the Statutory Auditor on net worth.				
6.	Copy of Work order and completion certificate for project experience as per given in Section 5.3				
7.	Copies of Certifications as stipulated in Section 5.3				

13.9.2 Annexure 2.2. - Technical Bid Cover Letter

(To be submitted on the Letterhead of the responding firm)
Date: dd/mm/yyyy

To

The Health Officer,
BCCC,Public Utility Building,
9th & 10th Floor, near Mayohall, M.G. Road,
Bengaluru-560001.

Sub : Request for Proposal for "Smart Virtual Clinics"
NIT No:

Dear Sir,

Having examined the RFP, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to provide the professional services as required and outlined in the RFP for **"Request for Proposal for Selection of System Integrator for implementing Smart Virtual Clinics".**

We attach hereto the technical response as required by the RFP, which constitutes our proposal. We undertake, if our proposal is accepted, to adhere to the implementation plan (Project schedule) for providing Professional Services in **"Request for Proposal for Selection of System Integrator for implementing Smart Virtual Clinics"**, put forward in RFP or such adjusted plan as may subsequently be mutually agreed between us and **BCCC** or its appointed representatives.

If our proposal is accepted, we will obtain a Performance Bank Guarantee issued by a nationalized bank / Schedule Commercial Bank in India, for a sum of equivalent to 5% of the contract value for the due performance of the Contract.

We agree for unconditional acceptance of all the terms and conditions set out in the RFP document and also agree to abide by this tender response for a period of 180 days from the date of submission of Bid and it shall remain binding upon us with full force and virtue, until within this period a formal Contract is prepared and executed, this tender response, together with your written acceptance thereof in your notification of award, shall constitute a binding contract between us and **BCCC**.

We confirm that the information contained in this proposal or any part thereof, including its exhibits, schedules, and other documents and instruments delivered or to be delivered to **BCCC** is true, accurate, and complete. This proposal includes all information necessary to ensure that the statements therein do not in whole or in part mislead **BCCC** as to any material fact.

We agree that you are not bound to accept any tender response you may receive. We also agree that you reserve the right in absolute sense to reject all or any of the products/ services specified in the tender response.

It is hereby confirmed that I/We are entitled to act on behalf of our company/ corporation/ firm/ organization and empowered to sign this document as well as such other documents, which may be required in this connection.

Date: (Signature)
(Name)
(In the capacity of) [Seal /
Stamp of bidder]

13.9.3 Annexure 2.3 - Project Implementation Approach

Bidders are required to provide a detailed approach & methodology to execute the entire project. Bidders are advised to comply with the below provided headers/Approach components while detailing out their solution.

1. Understanding of requirement and Implementation approach
   - Understanding of requirements
   - Proposed Architecture and its components
   - Work Plan & its adequacy

2. Robustness and quality
   - End to end integrated solution proposed
   - Equipment deployment and integration approach encompassing all solutions
   - Timelines and modalities for implementation in a time bound manner
   - Project implementation approach or strategy and operations and maintenance plan including comprehensiveness of fallback strategy and planning during rollout
   - Any other area relevant to the scope of work and other requirements of the project

3. Assessment of Manpower deployment, Training and Handholding plan
   - Deployment strategy of Manpower
   - Contingency management
   - Mobilization of existing resources and additional resources as required
   - Training and handholding strategy (Pre-Implementation and Post-Implementation)

4. Project Monitoring and Communication Plan– Bidder's approach to project monitoring and communications among stakeholders.

5. Risk Management Plan – Bidder's approach to identify, respond / manage and mitigate risks

6. Quality Control plan – Bidder's approach to ensure quality of work and deliverables

7. Operation and Maintenance Plan

8. Escalation matrix during contract period

Note:

- All the pages (documentary proofs and other documents that may be attached) should contain page numbers and would have to be uniquely serially numbered.

13.9.4 Annexure 2.4. - Format for OEM Authorization

(This form has to be provided by the OEMs of the products proposed)

Date:
To,

The Health Officer,
BCCC,Public Utility Building,
9th & 10th Floor, near Mayohall, M.G. Road,
Bengaluru-560001.

RFP Ref: <-->

Dear Sir,

We_____, (name and address of the manufacturer) who are established and reputed manufacturers of_____having factories at_____(addresses of manufacturing / development locations) do hereby authorize M/s _____(name and address of the bidder) to bid, negotiate and conclude the contract with you against the above mentioned tender for the above equipment / software manufactured / developed by us.

We herewith certify that the above mentioned equipment / software products are not end of the sale/life and we hereby undertake to support this equipment/software for the duration of minimum 2 years from the date of Go Live.

The offered product carries _____years of Warranty.

Yours faithfully,
(Name)
(Name of Producers)

13.9.5 Annexure 2.5 – Format for Project Citation

Item	Details	Attachment Ref. Number	Bid Document Ref. Page No.
Name of the project			
Client for which the project was executed			
Name and contact details of the client			
Project Details			
Description of the project			
Scope of services			
Outcomes of the project			
Other Details			
Total cost of the project			
Total cost of the services provided by the Bidder			
Duration of the project (no. of months, start date, completion date, current status)			
Other Relevant Information			
Letter from the client to indicate the successful completion of the projects			
Copy of Work Order/Contract			
For ongoing projects, letter from client indicating percentage of work completed up to Bid Due Date			

Note: *The Bidder is required to use above formats for all the projects referenced by the bidder for the technical qualification criteria*

13.10 Annexure 3 – Guidelines for Financial Proposal

13.10.1 Annexure 3.1 - Financial Bid Cover Letter

(To be submitted on the Letterhead of the Bidder)

Date:
dd/mm/yyyy To

The Health Officer,
BCCC,Public Utility Building,
9th & 10th Floor, near Mayohall, M.G. Road,
Bengaluru-560001.

Subject: Bid for "**Selection of System Integrator for implementing Smart Virtual Clinics".**

NIT No: _____dated _____

Dear Sir,

We, the undersigned bidder, having read & examined in detail, the Bidding Document, the receipt of which is hereby duly acknowledged, I/ we, the undersigned, offer to supply/ work as mentioned in the Scope of the work, Bill of Material, Technical Specifications, Service Level Contract & in conformity with the said bidding document for the same.

i. I / We undertake that the prices are in conformity with the specifications prescribed. The quote/ price are inclusive of all cost likely to be incurred for executing this work. (BoQ).
ii. I / We undertake, if our bid is accepted, to deliver the goods & services in accordance with the delivery schedule specified in the RFP.
iii. I/We undertake to successfully operationalize the entire solution as per scope of work mentioned in the RFP document.
iv. I/ We have examined and have no reservations to the Bidding Documents, including any corrigendum/addendums issued by **BCCC**;
v. I/We understand that any additional hardware and software required to make the entire solution operational shall have to be provided by us.
vi. I/ We hereby declare that in case the Project is awarded to us, we shall submit the contract performance bank guarantee as prescribed in the RFP.
vii. I / We agree to abide by this bid for a period of 180 days from the date of bid submission and it shall remain binding upon us and may be accepted at any time before the expiry of that period.

viii. Until a formal contract is prepared and executed, this bid, together with your written acceptance thereof and your notification of award shall constitute a binding Contract between us.

ix. Total Capex price should not exceed 70% of the Grand Total (Capex + Opex) quoted for the project.

x. I/ We hereby declare that our bid is made in good faith, without collusion or fraud and the information contained in the bid is true and correct to the best of our knowledge and belief.

We agree to all the terms & conditions as mentioned in the RFP document and submit that we have not submitted any deviations in this regard.

In witness thereof, I/we submit this Bid under and in accordance with the terms of the RFP document.

Yours faithfully,

(Signature of the Authorized signatory)

(Name and designation of the of the Authorized signatory)

Date:
Place:
Name and seal of Bidder/Lead Member

13.10.2 Annexure 3.2 - Financial Bid Format & Instructions

To be submitted on e-procurement portal only (i.e. www.eproc.karnataka.gov.in)

NIT No:

Implementation of Smart Virtual Clinics" (Inclusive of GST)

3.2.1 Total Price Summary

S No	Head	Amount (In INR)	Amount (In Words)
1	Total CAPEX		
2	Total OPEX for 2 years		
3	Civil & Electrical work for 22 PHC's		
4	15 cabins Command Center		
5	Grand Total (1 + 2 + 3+4)		

NOTE: Grand total has to be quoted in the e- procurement portal.

3.2.2 Price component for CAPEX:

The Bidder shall consider all the components and quantity to fulfill the RFP and project requirements in totality. The Bidder shall consider all the components and quantity to fulfill the RFP and project requirements in totality.

3.2.3 Price Component for Opex

(Including all incidental and logistics costs)

SN	Operation Cost	Year 1	Year 2
1	Manpower Cost (O & M)		
2	Cloud Data Centre & Data Recovery on Cloud		
3	Operations & Maintenance, AMC & License cost		
4	ISP (Network Provision) Charges		

3.2.3.1 Details of Manpower Costs during O & M

Sl No	Type of Resource	Minimum Quantity	Year 1	Year 2
1	Program Head	01	01	01
2	Project Manager	01	01	01
3	Operation Manager	01	01	01
4	Certified Clinical Operators	22	22	22
3	Technical Support for IT & Software Platform (At CCCC)	02	02	02
4	Technical Support for IT Infra & Device Integration (At CCCC)	02	02	02
5	Central Clinical OP (Relivers)	04	04	04

Instructions:

a. *Bidder should provide all prices in INR only, as per the prescribed format in the e-procurement portal. Bidder shall enter the unit price of the line items inclusive of GST.*

b. *All items provided should be under Insurance. The Insurance should be for and comprehensive covering damages for Theft, Fire, Natural Calamities, Riots and Terrorists activities etc., (including 2 Years of O&M and AMC for 2 years)*

c. *Value quoted as total price must contain all the components required for the successful implementation of the project. Nothing extra will be paid by the authority beyond the value quoted in the above form.*

d. *Price to be inclusive of all adjunct / ancillary hardware, software, services and works, whether specifically mentioned or not*

e. *The Bidder needs to account for all Incidental as well as Out of Pocket expenses, no additional payment shall be made by Authority whatsoever for any omission.*

f. *Bidder should refer the RFP for details on the technical requirements of the system and the benchmark specifications for the items mentioned in the financial formats.*

g. *Bidders must carefully read the Scope, Technical Requirements and the SLAs mentioned in the RFP and accordingly propose the software, hardware, accessories and services and their respective quantities required to completely meet the requirements of this RFP.*

h. *Total Capex price should not exceed 70% of the Grand Total (Capex+Opex) quoted for the project.*

13.11 Annexure 4 - Declaration by Bidder & OEM for not being Blacklisted / Barred / Debarred (To be submitted on the Non-judicial stamp paper of appropriate value)

To

The Health Officer,
BCCC,Public Utility Building,
9th & 10th Floor, near Mayohall, M.G. Road,
Bengaluru-560001.

Subject: Declaration for not being debarred / black-listed by Central / any State Government department in India as on the date of submission of the bid

NIT No:

Dear Sir,

We hereby declare that M/s_____, including all the OEM Partners in the last 10 years at the time of submission, Should not be under a declaration of ineligibility for corrupt or fraudulent practices with any of the State government or Central Government or PSU or Municipal agencies in India or Abroad.

OR

The Bidder must not have been blacklisted or banned or debarred.

OR

The Bidder who's work orders have been short closed due to non-performance or who's LOA is withdrawn by the owner due to inefficiency of the bidder in performing or implementing assigned project technically/financially are not eligible to participate in this bid.

Further we undertake that, If BCCC found that the above undertaking consists of misleading information and/or suppressing of the facts, BCCC shall reject the bid and BCCC reserves the right for black listing including initiation of legal/criminal proceeding

Thanking you,

Yours faithfully,

Signature of Authorized Signatory (with official seal)

13.12 Annexure 5 – Template for Pre-Bid Queries

Bidder shall submit all pre-bid queries in excel in the below format, only through e-procurement portal.

Sl No.	Page No	Clause No	Sec. No	Content in the RFP	Clarification sought

13.13 Annexure 6 - Power of Attorney

[To be executed on non-judicial stamp paper of the appropriate value in accordance with relevant Stamp Act. The stamp paper to be in the name of the company who is issuing the power of attorney]

Know by all men by these presents, we_____(Name of the Bidder and address of their registered office) do hereby constitute, appoint and authorize Mr. / Ms_ _ (name and residential address of Power of attorney holder) who is presently employed with us and holding the position of _____

as our Attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our Proposal for the **"Selection of System Integrator for implementing Smart Virtual Clinics"**, including signing and submission of all documents and providing information / responses to **BCCC**, representing us in all matters before **BCCC**, and generally dealing with the **BCCC** in all matters in connection with our Proposal for the said Project. We hereby agree to ratify all acts, deeds and things lawfully done by our said Attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid Attorney shall and shall always be deemed to have been done by us.

For

_____

Name:

Designation: Date:

Time:

Seal:

Business Address:

Accepted,

_____(Signature)

(Name, Title and Address of the Attorney)

Note:

- The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.
- The Power of Attorney shall be provided on Rs.100/- stamp paper.
- The Power of Attorney should be supported by a duly authorized resolution of the Board of Directors of the Bidder authorizing the person who is issuing this power of attorney on behalf of the Bidder.

Lead Member has to submit the Power of Attorney in favor of Authorized signatory in below given format in case of Consortium.

13.14 Annexure 7 – Format for Annual Turnover

ANNUAL TURNOVER

Requirements: The Average Turnover to be provided in the following format in any Two Audited Financial years out of the last 5 Audited Financial Years

Financial Information		
Financial Year	Financial Year 1 (mention Financial Year)	Financial Year 2 (mention Financial Year)
Net worth (in INR)		
Annual Turnover (in INR)		
AVERAGE TURNOVER		
Note: Annual turnover should be supported by Audited Balance Sheet and Certificate from the Statutory Auditors regarding ○ Average Annual Turnover ○ Net worth		

13.15 Annexure 8 – Format for Performance Bank Guarantee

For Contract Performance Bank Guarantee

Ref : < --- >

Date:

Bank Guarantee No.:_____

To

The Health Officer, BCCC Public Utility Building, 9th & 10th Floor, near Mayohall, M.G. Road, Bengaluru-560001.

Dear Sir,

PERFORMANCE BANK GUARANTEE – For <Project Name> WHEREAS

M/s. (name of Bidder), a company registered under the Companies Act, 1956/2013, having its registered and corporate office at (address of the Bidder), (hereinafter referred to as "our constituent", which expression, unless excluded or repugnant to the context or meaning thereof, includes its successors and assigns), agreed to enter into a Contract dated (Hereinafter, referred to as "Contract") with you for "Selection of System Integrator for implementing Smart Virtual Clinics**"**, in the said Contract.

We are aware of the fact that as per the terms of the Contract, M/s. (name of Bidder) is required to furnish an unconditional and irrevocable Bank Guarantee in your favour for an amount of 5% of the Annual Contract Value, and guarantee the due performance by our constituent as per the Contract and do hereby agree and undertake to pay any and all amount due and payable under this bank guarantee, as security against breach/ default of the said Contract by our Constituent.

In consideration of the fact that our constituent is our valued customer and the fact that he has entered into the said Contract with you, we, (name and address of the bank), have agreed to issue this Performance Bank Guarantee.

Therefore, we (name and address of the bank) hereby unconditionally and irrevocably guarantee you as under:

In the event of our constituent committing any breach / default of the said Contract, and which has not been rectified by him, we hereby agree to pay you forthwith on demand such sum/s not exceeding the sum of 5% of the Total Contract Value i.e.,<in words> without any demur.

Notwithstanding anything to the contrary, as contained in the said Contract, we agree that your decision as to whether our constituent has made any such default(s) / breach(es), as aforesaid and the amount or amounts to which you are entitled by reasons thereof, subject to the terms and conditions of the said Contract, will be binding on us and we shall not be entitled to ask you to establish your claim or claims under this Performance Bank Guarantee, but will pay the same forthwith on your demand without any protest or demur.

This Performance Bank Guarantee shall continue and hold good till 180 days after completion of the Contract Period, subject to the terms and conditions in the said Contract.

We bind ourselves to pay the above said amount at any point of time commencing from the date of the said Contract until 6 months after the completion of Contract Period.

We further agree that the termination of the said Contract, for reasons solely attributable to our constituent, virtually empowers you to demand for the payment of the above said amount under this guarantee and we would honor the same without demur.

We hereby expressly waive all our rights: Requiring to pursue legal remedies against BCCC; and for notice of acceptance hereof any action taken or omitted in reliance hereon, of any defaults under the Contract and any resentment, demand, protest or any notice of any kind.

We the Guarantor, as primary obligor and not merely Surety or Guarantor of collection, do hereby irrevocably and unconditionally give our guarantee and undertake to pay any amount you may claim (by one or more claims) up to but not exceeding the amount mentioned aforesaid during the period from and including the date of issue of this guarantee through the period.

We specifically confirm that no proof of any amount due to you under the Contract is required to be provided to us in connection with any demand by you for payment under this guarantee other than your written demand.

Any notice by way of demand or otherwise hereunder may be sent by special courier, telex, fax, registered post or other electronic media to our address, as aforesaid and if sent by post, it shall be deemed to have

been given to us after the expiry of 48 hours when the same has been posted. If it is necessary to extend this guarantee on account of any reason whatsoever, we undertake to extend the period of this guarantee on the request of our constituent under intimation to you.

This Performance Bank Guarantee shall not be affected by any change in the constitution of our constituent nor shall it be affected by any change in our constitution or by any amalgamation or absorption thereof or therewith or reconstruction or winding up, but will ensure to the benefit of you and be available to and be enforceable by you during the period from and including the date of issue of this guarantee through the period.

Notwithstanding anything contained hereinabove, our liability under this Performance Guarantee is restricted to 5% of the Contract Value, and shall continue to exist, subject to the terms and conditions contained herein, unless a written claim is lodged on us on or before the aforesaid date of expiry of this guarantee.

We hereby confirm that we have the power/s to issue this Guarantee in your favour under the Memorandum and Articles of Association / Constitution of our bank and the undersigned is / are the recipient of authority by express delegation of power/s and has

/ have full power/s to execute this guarantee under the Power of Attorney issued by the bank in your favour.

We further agree that the exercise of any of your rights against our constituent to enforce or forbear to enforce or any other indulgence or facility, extended to our constituent to carry out the contractual obligations as per the said Contract, would not release our liability under this guarantee and that your right against us shall remain in full force and effect, notwithstanding any arrangement that may be entered into between you and our constituent, during the entire currency of this guarantee.

Notwithstanding anything contained herein:

Our liability under this Performance Bank Guarantee shall not exceed 5% of the Total Contract Value. This Performance Bank Guarantee shall be valid only from the date of signing of Contract to 180 days after the End of Contract Period; and We are liable to pay the guaranteed amount or part thereof under this Performance Bank Guarantee only and only if we receive a written claim or demand on or before 180 days after the completion of Contract Period.

Any payment made hereunder shall be free and clear of and without deduction for or on account of taxes, levies, imports, charges, duties, fees, deductions or withholding of any nature imposts.

This Performance Bank Guarantee must be returned to the bank upon its expiry. If the bank does not

receive the Performance Bank Guarantee within the above-mentioned period, subject to the terms and conditions contained herein, it shall be deemed to be automatically cancelled.

This guarantee shall be governed by and construed in accordance with the Indian Laws and we hereby submit to the exclusive jurisdiction of courts of Justice in India for the purpose of any suit or action or other proceedings arising out of this guarantee or the subject matter hereof brought by you may not be enforced in or by such count.

Dated ……. this …….. day
20…

. Yours faithfully,

For and on behalf of the Bank,

(Signature)
Designation
(Address of the Bank) Note:

This guarantee will attract stamp duty as a security bond.

A duly certified copy of the requisite authority conferred on the official/s to execute the guarantee on behalf of the bank should be annexed to this guarantee for verification and retention thereof as documentary evidence in the matter.

13.16 Annexure 9 – EMD Bank Guarantee (BG)

EMD BG Form

Format for EMD through Bank Guarantee

1. In consideration of you, ……, having its office at …….., (hereinafter referred to as the "Authority", which expression shall unless it be repugnant to the subject or context thereof include its, successors and assigns) having agreed to receive the Bid of..... (a company registered under the Companies Act 1956/2013/ LLP Act 2008) and having its registered office at …… (hereinafter referred to as the "Bidder" which expression shall unless it be repugnant to the subject or context thereof include its/their executors, administrators, successors and assigns), for Selection of Master System Integrator for Design, Development, Implementation, Operation and Maintenance of Smart Virtual Clinic for BCCC (hereinafter referred to as "the Project") pursuant to the RFP Document dated..... issued in respect of the Project and other related documents including without limitation the draft Concession Agreement (hereinafter collectively referred to as "Bidding Documents"), we (Name of the Bank) having our registered office at.....and one of its branches at..... (hereinafter referred to as the "Bank"), at the request of the Bidder, do hereby in terms of Clause 3.9 of the RFP Document, irrevocably, unconditionally and without reservation guarantee the due and faithful fulfilment and compliance of the terms and conditions of the Bidding Documents (including the RFP Document) by the said Bidder and unconditionally and irrevocably undertake to pay forthwith to the Authority an amount of Rs. 19,00,000/- (Rs. Ninteen Lakhs through Bank Guaranty) (hereinafter referred to as the "Guarantee") as our primary obligation without any demur, reservation, recourse, contest or protest and without reference to the Bidder if the Bidder shall fail to fulfil or comply with all or any of the terms and conditions contained in the said Bidding Documents.

2. Any such written demand made by the Authority stating that the Bidder is in default of the due and faithful fulfilment and compliance with the terms and conditions contained in the Bidding Documents shall be final, conclusive and binding on the Bank.

3. We, the Bank, do hereby unconditionally undertake to pay the amounts due and payable under this Guarantee without any demur, reservation, recourse, contest or protest and without any reference to the Bidder or any other person and irrespective of whether the claim of the Authority is disputed by the Bidder or not, merely on the first demand from the Authority stating that the amount claimed is due to the Authority by reason of failure of the Bidder to fulfil and comply with the terms and conditions contained in the Bidding Documents including failure of the said Bidder to keep its Bid open during the Bid validity period as set forth in the said Bidding Documents for any reason whatsoever. Any such demand made on the Bank shall be conclusive as regards amount due and payable by the Bank under this Guarantee. However, our liability under this Guarantee shall be restricted to an amount not exceeding **Rs. 19,00,000/ (Nineteen Lakhs only).**

4. This Guarantee shall be irrevocable and remain in full force for a period of 180 (one hundred and eighty) days from the Bid Due Date inclusive of a claim period of 60 (sixty) days or for such extended period as may be mutually agreed between the Authority and the Bidder, and agreed to by the Bank, and shall continue to be enforceable till all amounts under this Guarantee have been paid.

5. We, the Bank, further agree that the Authority shall be the sole judge to decide as to whether the Bidder is in default of due and faithful fulfilment and compliance with the terms and conditions contained in the Bidding Documents including, inter alia, the failure of the Bidder to keep its Bid open during the Bid validity period set forth in the said Bidding Documents, and the decision of the Authority that the Bidder is in default as aforesaid shall be final and binding on us, notwithstanding any differences between the Authority and the Bidder or any dispute pending before any Court, Tribunal, Arbitrator or any other Authority.

6. The Guarantee shall not be affected by any change in the constitution or winding up of the Bidder or the Bank or any absorption, merger or amalgamation of the Bidder or the Bank with any other person.

7. In order to give full effect to this Guarantee, the Authority shall be entitled to treat the Bank as the principal debtor. The Authority shall have the fullest liberty without affecting in any way the liability of the Bank under this Guarantee from time to time to vary any of the terms and conditions contained in the said Bidding Documents or to extend time for submission of the Bids or the Bid validity period or the period for conveying acceptance of Letter of Award by theBidder or the period for fulfilment and compliance with all or any of the terms and conditions contained in the said Bidding Documents by the said Bidder or to postpone for any time and from time to time any of the powers exercisable by it against

the said Bidder and either to enforce or forbear from enforcing any of the terms and conditions contained in the said Bidding Documents or the securities available to the Authority, and the Bank shall not be released from its liability under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the said Bidder or any other forbearance, act or omission on the part of the Authority or any indulgence by the Authority to the said Bidder or by any change in the constitution of the Authority or its absorption, merger or amalgamation with any other person or any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of releasing the Bank from its such liability.

8. Any notice by way of request, demand or otherwise hereunder shall be sufficiently given or made if addressed to the Bank and sent by courier or by registered mail to the Bank at the address set forth herein.

9. We undertake to make the payment on receipt of your notice of claim on us addressed to [name of Bank along with branch address] and delivered at our above branch which shall be deemed to have been duly authorized to receive the said notice of claim.

10. It shall not be necessary for the Authority to proceed against the said Bidder before proceeding against the Bank and the guarantee herein contained shall be enforceable against the Bank, notwithstanding any other security which the Authority may have obtained from the said Bidder or any other person and which shall, at the time when proceedings are taken against the Bank hereunder, be outstanding or unrealized.

11. We, the Bank, further undertake not to revoke this Guarantee during its currency except with the previous express consent of the Authority in writing.

12. The Bank declares that it has power to issue this Guarantee and discharge the obligations contemplated herein, the undersigned is duly authorized and has full power to execute this Guarantee for and on behalf of the Bank.

13. For the avoidance of doubt, the Bank's liability under this Guarantee shall be restricted to Rs. 19,00,000/ (Nineteen Lakhs only). The Bank shall be liable to pay the said amount or any part thereof only if the Authority serves a written claim on the Bank in accordance with paragraph 9 hereof, on or before [*** (indicate date falling 180 days after the Bid Due Date)].

Signed and Delivered by ..... Bank
By the hand of Mr./Ms. ……., its..... and authorized official.
(Signature of the Authorized Signatory)

(Official Seal)

13.17 Annexure 10 - Manufacturer Authorization Form

To,

The Health Officer, BCCC, Public Utility Building, 9th & 10th Floor, near Mayohall, M.G. Road, Bengaluru-560001.

.

Subject: Manufacturer Authorization for Tender No <…..> dated < …..>.

Dear Sir/Madam:

We <OEM> who are established and reputable manufacturers of <mention each item being offered) do hereby authorize M/s <bidder's name> to quote our product, and sign the contract with you for the goods manufactured by us.

The said items being supplied to <bidder's name> are being manufactured in our factories at <address of factory>. Our full support is extended in all respects for supply, warranty and maintenance of our product proposed for this tender. We also ensure to provide the service support for the supplied <mention each item here> for a period of 3 years from date of installation as per tender terms & conditions.

Further, hereby we confirm that we comply to all the necessary qualification requirement as per the tender and we are submitting all the required self-attested documentary evidences to fulfil the tender condition through supplier/dealer.

We hereby extend our full guarantee and warranty for 5 years as per terms and conditions of the RFP and the contract for the equipment and services offered against this invitation for RFP offer by the above firm.

Further, we hereby undertake if any false representation is made or if we default in supply and service including quality/performance of the above equipment, BCCC reserves the right to blacklist and terminate the contract both supplier and OEM.

Yours Faithfully

(Name of manufacturers)

Note: This letter of authority should be on the letterhead of the manufacturer and should be signed by a person competent and having the power of attorney to legally bind the manufacturer. It should be included by the bidder in its Bid.

13.18 Annexure 11 - Land border with India

Date:

To,

The Health Officer, BCCC, Public Utility Building, 9th & 10th Floor, near Mayohall, M.G. Road, Bengaluru-560001.

Subject: Self-Declaration in response to the "Request for Proposal for {Name of the Project}"

Ref: TENDER DOCUMENT No. <<…..>> dated << …..>>

Dear Sir,

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. (Where applicable, evidence of valid registration by the Competent Authority shall be attached.)

(Signature of the Tenderer)

Printed Name Designation Seal

Date: Place:

END of Document